NURSING

Practical I & II

Vocational Education

HIGHER SECONDARY - FIRST YEAR

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Untouchability is a sin
Untouchability is a crime
Untouchability is inhuman

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FOREWORD

The development of the text book “Nursing” resulted from the combined efforts many talented professional, committed to excellence. Special recognition and due acknowledge is hereby made to the Director of School Education and the Joint Director of School Education Chennai.

Nursing is a practical oriented profession. The nurse has multifaceted role in hospital settings as a care provide to clients, administrator, superviosor, etc. But the main role played in the hospital is the care provider. The nurse should be well trained to manage all practical situation in different areas of treatment. She should be able to assess the client of various conditions. She should be skilled in providing care as per the assessment findings.

This book is written for the higher secondary students who need to gain the practical before joining the professional course in Nursing.

In this edition various basic nursing procedures have been described. This will be a guidance for the students to gain the skill to practice nursing. This will pave the way for the professional career in future.

Dr. Mrs. P. Mangala Gowri.

VOCATIONAL NURSING
HIGHER SECONDARY
FIRST YEAR
PRACTICALS - I

PRACTICALS – I

Sl. No.	Procedure	Date		Signature
		Ward	Classroom	
I.	**Bed making.**			
	Unoccupied bed.			
	Occupied bed.			
II.	**Basic care**			
	Mouth care.			
	Back care.			
	Sponging.			
	Nail care.			
	Hair care.			
	Foot care			
III.	**Recording of vital signs.**			
	Temperature.			
	Pulse.			
	Respiration.			
	Blood pressure.			

PRACTICALS – I

Sl. No.	Procedure	Date		Signature
		Ward	Classroom	
IV.	**Positioning of patients.** Supine Position Prone Position Lateral Position Fowler's Position Dorsal Recumbent Dorsal (Supine) Position Sitting Position Lithotomy Position Knee-chest Position Sim's Position			

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Clinical hours – 80 periods

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BED MAKING

BED MAKING (Procedure to keep bed clean and comfortable)

1) BED/COT: Metal rods/spring, Wood/plasticwire

Length	: 78 inch.
Breadth	: 38 inch.
Height	: 28 inch

2) MATTRESS: Firm, thick smooth, with washable covers that are bigger than the mattress made of cotton, coir, dunlop, air, water.

Length	: 190 cms.
Breadth	: 90 cms.

3) BEDSPREAD / TOP SHEET

Length	: 3 mts.
Breadth	: 2 mts.

4) DRAW MACKINTOSH: Shoulder to below the knees (rubber or plastic)

5) DRAW SHEET : drawn from side to side

Length	: 150 cms.
Breadth	: 110 cms.

6) FOOT SHEET/BOTTOM SHEET

Length	: 108 inch.
Breadth	: 76 inch.

7) PILLOWS : Cotton/firm with pillow case

Length	: 60 cms.
Breadth	: 45 cms.
Thickness	: 10 cms.

8) SPACE BETWEEN COTS: 3 to 3.5 feet.

Purposes

1) To receive the patient comfortably.
2) To give the unit or ward a neat appearance.
3) To provide a safe bed to the patient.

Guidelines

1) Work systematically
2) Plan the work
3) Collect equipment in the order that they are to be used.
4) Arrange the environment conveniently.
5) Accomplish a task with each movement.

6) Avoid torn linen

7) Prevent linen away from you.

8) Fold linen and prevent touching the floor.

9) Avoid placing dirty linen on the floor.

10) Shake gently, do not flap.

11) Face direction of work.

12) Work from head to foot, from near to far and from clean to unclean.

13) Make the bed - smooth, unwrinkled and flat

14) Tuck linen for enough under the matress and keep it fixed, tight and smooth.

15) Do not alter the shape of the mattress

16) Maintain body mechanics

17) Ensure the clients comfort and safety.

18) Ensure your own personal safety.

UNOCCUPIED BED

Equipments required:

1) Carbolization articles, hamber, bucket, mattress with cover.

2) Pillow, Pillowcase, Blanket, topsheet, drawsheet, Draw Mackintosh, Bottom sheet, long mackintosh.

Steps for bed making:

1) Wash hands thoroughly.

2) Arrange thoroughly in order to use on a stool at the foot end of bed.

3) Carbolize the mattress and cot.

4) Turn the mattress and pull the cover on.

5) Place bottom sheet with the crease in the middle and rest in upper right quadrant of mattress.

6) Unfold and spread straight.

7) Tuck 12 - 18 inches under the mattress on right head end with hands straight and palms down.

8) Make a mitred corners and tuck.

9) Tuck at foot end.

10) Pull tight and tuck the sheet along the right side

11) Place draw mackintosh 15 inch. from the top and tuck it along the rightside

12) Place draw sheet over the mackintosh about 3.5 inch. above the mackintosh and tuck it along the rightside.

13) Go to opposite side left and tuck in each linen as done on the rightside but fan fold and tuck the draw sheet on the left side.

14) Come to the right side and place the top sheet with the crease in the middle and rest of the sheet in right lower quadrant.

15) Unfold the top layers and tuck at the foot end and make mitred corner on the right side.

16) Spread the other end over the mattress about 15 inch. from the head end.

17) Tuck along the right side

18) Go to the left side and tuck as done on the right side.

19) If a blanket is used then spread and tuck it like a foot sheet.

20) Place the pillow with the cover at the head end (open end away from the entrance)

21) Cover bed with counterpan.

22) Straighten the unit, in order

23) Clean and replace the articles

24) Wash hands.

OCCUPIED BED: Making a bed with the patient in it (usually done by two persons)

Articles Required: Like for an unoccupied bed and air cushion, Bed Cradle/Back rest/footrest, serveral pillows.

PROCEDURE

1) Untuck sheet, all around, roll it on the right side.

2) Turn covered patient to the left side and support with pillows.

3) Carbolize right side.

4) Roll top sheet lengthwise and place on the right side

5) Roll draw mackintosh and place on the right side.

6) Gently turn the patient to the right side and support with pillows.

7) Second nurse removes soiled sheets and carbolize the leftside, then pulls.

8) The patient lies in the supine position.

9) Both nurses, should tighten and tuck, the sheets on their respective sides and make mitred corners (fan fold draw sheet on the left side)

10) Lift patient's legs (second nurse)

11) Place the foot sheet (first nurse) at the foot end.

12) Spread the sheet to opposite side

13) Tuck top layer and make mitred corner at foot end. (right side)

14) First nurse lifts patients legs second nurse tuck at the left side

15) Pull other end of the top sheet over patients leg and cover him.

16) If patient can be lifted but not turn do bed from head end to the foot end.

BASIC CARE

MOUTH CARE : The mouth cavity is lined with mucous membrane continuous with the skin. The mucous membrane is an epithelial tissue that lines and protects organs, secretes mucous to keep passageways of digestive system moist and lubricated, and absorbs nutrition.

Purposes of Mouth Care

1) Oral Hygiene helps maintain the healthy state of the mouth, teeth, gums and lips.

2) Brushing cleanses the teeth from food articles, plaque and bacteria.

3) Brushing massages the gums.

4) Brushing relieves discomfort resulting from unpleasant odours.

5) Flossing helps remove plaque and tartar from between teeth to reduce the gum inflammation and infection.

6) Oral hygiene gives a sense of well being.

7) Proper Oral hygiene stimulated appetite.

8) To improve taste.

Proper Mouth Care

1) Good oral hygiene involves cleanliness, comfort and the moisturizing the mouth structures. Proper care prevents oral disease and tooth destruction.

2) Brushing, flossing and irrigation are necessary for proper cleansing.

3) To prevent tooth decay, reduces the intake of carbohydrates, especially sweet snacks between meals.

4) Brushing of the teeth atleast four times a day is a basic to an effective oral hygiene (after meals and at bed time).

5) Tooth brushes should be replaced every three months.

6) After brushing, through rinsing is important to remove dislodged food particles.

Risk factors for Oral problems:

1) Patients who are paralyzed or seriously ill.
2) Unconscious patients.
3) Diabetic patients.
4) Patients undergoing radiation therapy.
5) Patients receiving chemotherapy.
6) Patients having oral surgery, trauma.
7) Patients with immunosuppressant drug eg.HIV patients.

Common Oral problems: The two major types of Oral problems are dental caries (cavities) and periodontal disease (Pyorrhoea)

Dental caries is the most common oral problem of younger people. The development of the cavities involves the destruction of tooth enamel through decalcification. Decalcification is a result of an accumulation of mucin, carbohydrates and lactic acid bacilli in the saliva normally found in the mouth, which forms a coating on the teeth called plaque.

Periodontal disease is the disease of the tissue around the tooth. It is an inflammation of the periodontal membrane. It is the most common problem of people over 35 years of age.

The calculus deposit on teeth at the gum line. The alveolar bone is destroyed and the teeth loosen.

Halitosis (Bad breath) is a common problem of the oral cavity.

Causes: (1) Poor oral hygiene.
(2) Infection of the oral cavity
(3) Liver disease
(4) Diabetes

Cheilosis is the disorder involves cracking of the lips especially at the ankle of the mouth.

Causes: (1) Riboflavin deficiency
(2) Mouth breathing
(3) Excess salivation

Stomatitis is an inflammative condition of the mouth

Causes: (1) Vitamin deficiency
(2) Infection by bacteria, viruses or fungi
(3) Use of Chemotherapeutic drugs

Glossitis is an inflammation of the tongue resulting from an infectious disease or injury such as burn or bite.

Gingivitis is an inflammation of the gums usually resulting from Poor oral hygiene.

Oral malignancies: The most common site is at the base of the tongue.

Causes: (1) Pipe smoking
(2) Tobacco Chewing

Equipments

A tray containing

1) Cotton swab or clean pieces in a bowl
2) Forceps (artery and dissecting forceps)
3) Gallicups 2 nos. (One for Glycerine borax another for salt solution)
4) Feeding cup with salt solution
5) Kidney trays 2
6) Swabs sticks
7) Rubber sheet
8) Towel
9) Wash towel

Procedure:

1) Place all the articles at conveniently on the bedside table.
2) Explain the procedure to the patient.
3) Put the rubber sheet (mackintosh) with towel and kidney tray under the chin.
4) Have the patient rinsed his mouth with salt solution from the feeding cup.

5) Turn the patient's head to one side.

6) Take the artery forceps, wrap a piece of linen around the tip of the forceps.

7) Dip it inside the saline water and clean the teeth with up and down movements.

8) Pay special attention to inside the mouth, gums, inside the cheeks, tongue and the roof of the mouth.

9) Change linen pieces as often as necessary.

10) Discard used cotton in the other kidney tray

11) Allow the patient to gargle as much as necessary.

12) Dip the swap stick in glycerine borax, swab gums, root and sides of the mouth.

After care of Equipments:

1) Clean kidney trays and feeding cups with soap and water.

2) Boil forceps and gallicups after cleaning.

3) Place all articles in their places after cleaning and boiling.

Care of Dentures:

If the patient has dentures, care should be taken to keep the dentures clean. If the patient is unable to do so, the nurse has to remove the dentures by grasping it with gauze pieces, place them in a tumbler or cup containing water. Dentures are washed carefully by using brush, toothpaste and cool water. Water, which is too hot, may injure the composition of dentures. If the patient is to do by himself, he may be assisted. Remove dentures of patients who are unconscious, mentally ill and who have vomiting or cough spasm.

BACK CARE

Care of pressure points and prevention of decubitus ulcer

Prevention of decubitus ulcer in their patients who are bedridden is a major responsibility of nurses working in a hospital. When we walk or stand on our two feet, the weight of our body is borne by our feet. But when an individual is confined to bed, the weight of his body has to be borne by his back or sides. The skin of the soles of our feet is very tough and thick and it does not break easily in spite of the entire weight of the body being supported by it. The nature has designed the sole of the skin for weight bearing whereas the skin over the back of the body is not. When there is pressure on the skin of the back because of the weight of the body, the skin breaks and an ulcer develops.

Definition of Decubitus Ulcer: A decubitus ulcer is a pressure sore resulting from prolonged confinement in bed.

Areas which are likely to be affected.

When a patient lies in supine position, the following areas are vulnerable to pressure sores.

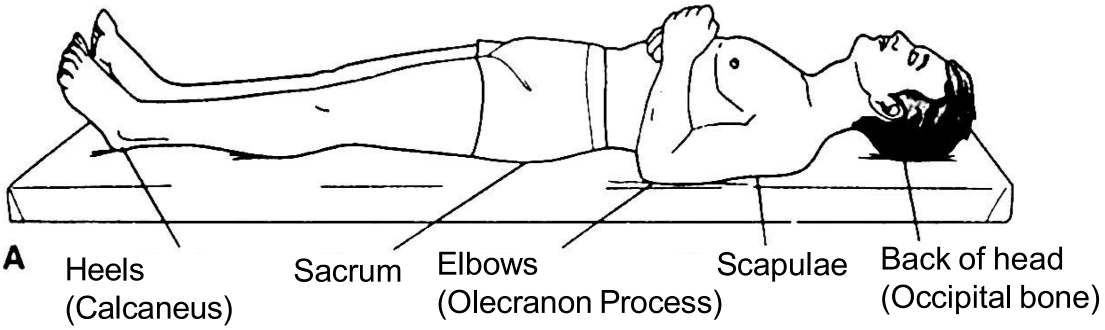
1) Back of the head	2) Shoulder blades	3) Elbows
4) Base of the Spine	5) Buttocks	6) Heels

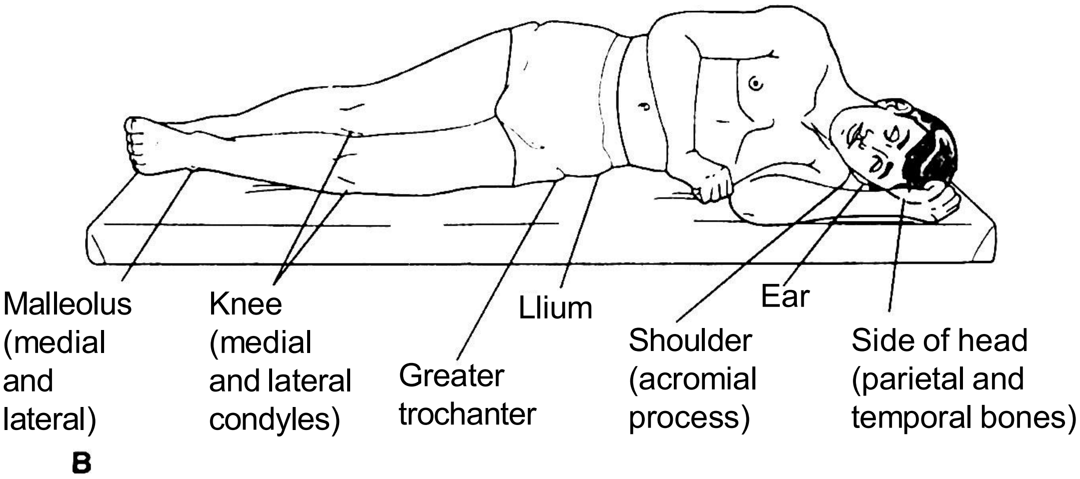
When a patient is in lateral position the following areas will be affected.

1) Edge of ear	2) Shoulders	3) Knees	4) Ankles

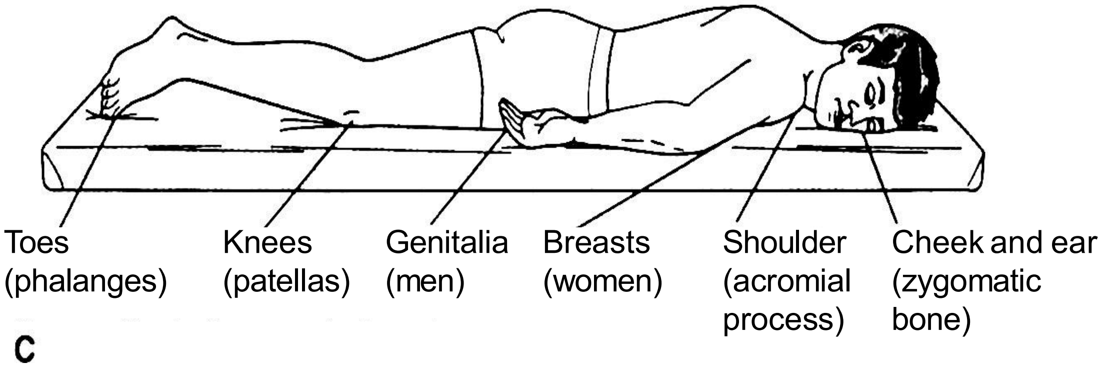
All or any of the protuberant parts of a bedridden patient may become liable to pressure sores.

These various pictures are illustrating different body positions and the pressure areas

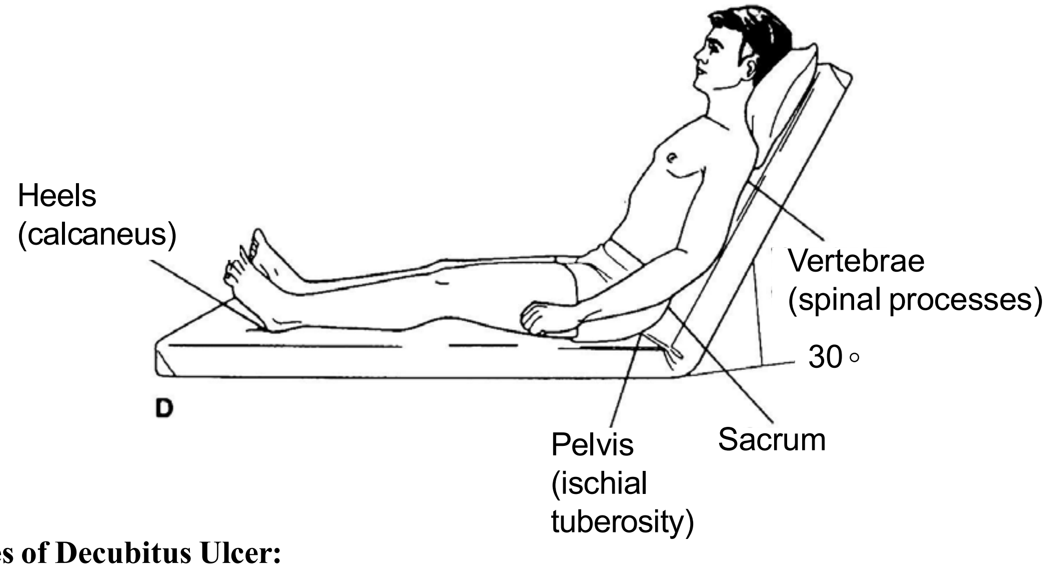




C. Prone Position



D. Fowler's position.



Causes of Decubitus Ulcer:

Local causes: (a) Pressure: When any body prominence presses upon the bed, the tissues lying between them get reduced blood supply. If this condition prolongs, the superficial tissues necroses, skin breaks down and formation of an ulcer takes place.

The following condition causes prolonged pressure:

1) Leaving a patient in one position for a long time.
2) Leaving a patient on a bedpan for a long while.
3) Hard and lumpy mattress.
4) Pressure exerted by splints and plaster casts.

(b) Friction:

1) Friction from bedclothes or any other cause irritates the skin leading to inflammation.
2) If you lie on a bed sheet, which has a rough seam in the middle of it, for a while, you will notice the impression of the seam on your back.
3) You will also experience burning sensation and the part will be red colour.

The following factors cause friction in a patient:

1) Careless pulling of patient and his linen.
2) Giving and removing bed pan carelessly.
3) Leaving broad crumbs, orange seeds and food particles on the bed.
4) Creases in the bottom sheet.
5) General restlessness of patient.
6) Rubbing two skin surfaces together.

(c) Moisture: Moisture makes the skin swollen, unhealthy and easily breakable.

1) The following reasons result in moisture over the pressure areas:

1) Incontinence of faeces and urine
2) Severe perspiration
3) Leaving a patient in wet linen.
4) Heat: Leaving a patient in one position for a long time, the part gets heated.
5) Lack of cleanliness and irritating substances on the skin. Eg.Perspiration, faeces, urine and vaginal discharge.

2) Predisposing factor for decubitus ulcer:

1) Unconscious, helpless or acutely ill patients.These patients are unable to appreciate the weight of pressure and change their position
2) Paralysed patients (Paraplegic and quadriplegic patients). They have lost motor and sensory functions.
3) Patients with incontinence (Spinal injuries)
4) Aged persons
5) Very emaciated and malnourished people
6) Patients with dehydration or oedema.
7) Very fat people
8) Patients with disease affecting circulation. eg. Heart diseases and anaemia
9) Patients with debilitating diseases such as cancer and tuberculosis.
10) Patients with metabolic disorders. eg. Diabetes

Prevention of decubitus ulcers:

A) Prevent Pressure:

1) Establish a turning schedule for bedridden patients; turn hourly.
2) Have a firm cot and foam mattress for bed-ridden patients-use extra pillows, pads and air rings to reduce pressure.

B) Prevent Friction:

1) When changing position of your patient lift him and do not drag him on to bed.
2) Keep sheets without wrinkles and seams.
3) Keep bed clean and free from crumbs.
4) If patient is restless, protect pressure points with soft pads.

C) Prevent Moisture:

1) Keep dressings and bed dry and clean.
2) Clean and dry the incontinent patients promptly.

D) Prevent Predisposing causes:

1) Improve patient's health by means of good food, ventilation, sunlight and exercises.
2) Encourage circulation through massage.
3) Have patient to ambulate early.

E) Observe early signs and symptoms of decubitus ulcers:

1) Redness
2) Dark discoloration
3) Bruising
4) Tenderness of the area
5) Burning sensation

F) Give good care to pressure points:

Careful cleaning and massage should be carried out 3 or 4 times a day for all bed-ridden patients. For some patients, it is necessary to give care as often as every two hours.

Equipment

1) A bowl of warm water
2) Sponge cloth
3) Soap
4) Towel
5) Dusting powder
6) Spirit

Procedure:

1) Explain procedure to patient- Arrange articles at the bedside.
2) Screen the bed
3) Wet the part with soapy hand massage the area in circular movement so that the tissues under the skin gets increased circulation.
4) Remove soap by washing.
5) Dry the areas
6) Apply spirit over the area massage well. Spirit helps to harden the skin.
7) Apply lightly dusting powder to keep the part thoroughly dry.
8) Do this treatment to all pressure points.
9) If the patient is incontinent, apply zinc cream instead of spirit and powder. This protects the skin from moisture.
10) Leave the patient comfortable after the procedure.

Treatment of decubitus ulcer:

1) Clean ulcers with aseptic precautions-Use antiseptics such as eusole (or) hydrogen peroxide.
2) Apply medication ordered by the doctor, eg.Antibiotic ointment, shark liver oil, zinc oxide, (or) any other topical applications.
3) Cover with sterile dressings and bandage.
4) Surgical formentation, ultraviolet rays (or) heat lamp are helpful in healing.
5) Provide good nutrition.
6) Prevent secondary infections.

SPONGING

Definition: Bathing the patient while he is in bed.

Purpose:

1) To cleanse the skin and thus increase elimination through it.
2) To stimulate circulation through slightly active (or) entirely passive exercise.
3) To refresh the patient by relieving fatigue and discomfort

General Instructions:

1) The temperature of the water should be 105° F-107°F (40°C-44°C) .
2) The water should be changed when it is cool or soapy.
3) Be sure to remove all the soap as it is irritating to the skin .
4) Do not expose the patient unnecessarily.
5) Observe the patient's skin while bathing. Particularly if it is the first bath after admission. It offers an opportunity for the nurse to observe any rashes or pressure sores.

Equipment

1) Mackintosh (long) and two bed sheets.
2) Soap in a soap tray
3) Two sponging pads
4) Towel-one
5) Linen to change (Gown)
6) Two jugs containing hot and cold water
7) Basin
8) Bucket
9) Screen
10) Urinal and bed pan

Procedure:

1) Close the window or door and screen the bed to prevent draught and to avoid exposure.
2) To collect the equipment next to the patients bed.
3) And arrange the items conveniently at the bedside.
4) Explain the procedure to the patient and get his cooperation
5) Protect the bed with mackintosh and sheet.
6) Remove the patients linen and cover the patient
7) Take water in the basin and feel with the back of your hand. The temperature should be comfortably hot.
8) With wet sponge pad, moisten the patient's face first.
9) Apply soap. Carefully wash patient's face, ears, and front of the neck. Dry with the towel
10) Wash the left hand first and the right hand. Support patient's arm by holding the wrist. Wash well between fingers if desired. The patient may place hands in basin.
11) Remove the sheet up to the waist, ask the patients to keep the arms above his head. It will be easy to clean the axillae in this position.
12) Clean chest and abdomen
13) Change water and turn the patient to the side and sponge his back. Give long firm strokes from back of neck to the buttocks
14) Watch for any redness over the pressure areas.

15) Do the left leg first and then the right. Have the patient's knee flexed so to facilitate washing. Give the bedpan and ask the patient to clean the genitals. If the patient is unable to do help to do it for him. Patient should be given privacy during this procedure .

16) The back care is done by applying alcohol, massage back, and use long firm strokes starting from back of the neck out over the shoulders and down to the buttocks. Use also rotator motion to increase the blood circulation. Extra attention to be given to the pressure areas.

17) Apply powder if indicated. This depends upon the condition of the skin. If the skin is wrinkled the application of powder is not advisable.

18) If the patient is having dribbling of urine, zinc cream is applied

19) Role up the mackintosh and sheet when the patient is on the side. Then remove it from the other side. Put the soiled linen in the receptacle.

20) Dress up the patient and remove the top sheet.

21) The bed is made tidy.

22) The patient is given a warm drink.

23) Remove the articles from the bedside.

24) Clean and replace in respective places.

25) Send soiled linen for wash.

Type of Therapeutic Baths

1) **Hot water tub bath:** Immersion in hot water helps relieve muscle soreness and spasm. Water temperature should be 45° C to 46° C.
2) **Warm water tub bath:** Bathing in warm water relieves muscle tension. Water temperature should be 43°C.
3) **Cool water bath**: Bathing in tepid water helps to lower body temperature when the body temperature is over 40°C (104°F).Water temperature should be 37°C .
4) **Sitz Bath:** Cleanses and reduces inflammation of the perineal and anal areas of a patient who has undergone rectal or perineal surgery or in haemorrhoids or fissures. Water temperature should be 43°C to 45°C.
5) **Cold sitz bath:** Cold sitz bath is more effective in relieving pain in the postoperative period.
6) **Back rub or back massage** promotes relaxation, relieves, muscular tension and stimulates skin circulation. An effective back rub takes 3-5 minutes.

CARE OF THE FOOT AND NAILS : The feet and nails require special attention to prevent infection, odours, and injury to tissue. People are unaware of foot or nail problems until pain or discomfort occurs. Problems may result from poor care of the feet and nails such as biting nails or trimming them improperly, exposure to chemicals and wearing poorly fitted shoes.

Purposes of care of the nails

1) To keep nails harmless
2) To prevent accumulation of dirt under the nails and reduce occurrence of infection.

Characteristics of a healthy nails:A normal healthy nail is transparent, smooth and convex with pink nail beds and translucent white tips.

Care of nail and foot:

1) Inspect the feet daily including the tops and soles of the feet and the area between the toes.
2) Wash and soak the feet daily using Luke warm (37°C).
3) If the feet perspire, apply a bland foot powder.
4) If dryness is noted along the feet, apply soft oil and rub gently into the skin.
5) File the toe nails straight across and square.
6) Avoid wearing elastic stockings.
7) Wear properly to improve circulation to the lower extremities.
8) Immediately wash minor cuts and dry them thoroughly. Mild antiseptics may be applied to the skin.

Risk factors for foot and nail ailments:

1) Patient with peripheral vascular disease eg.Diabetes mellitus.
2) Patients with neuropathy (degeneration of peripheral nerves characterized by loss of sensation)
3) Poor ill fitting foot wear
4) Poor knowledge of foot and nail care.

Common foot and nail problems

1) **Callus:** Is a thickened portion of epidermis caused by local friction or pressure.
2) **Corns:** Is caused by friction and pressure from shoes. It is seen mainly on toes, over bony prominence.
3) **Plantar warts:** Are fungating lesions, appearing on sole of foot and is caused by Papilloma virus.
4) **Athlete's foot: (Tinea pedis)** is the fungal infection of foot mainly induced by wearing of constricting footwear.
5) **Ingrown nails:** Toenails or finger nails grow inward into soft tissue around nail resulting from improper nail trimming.
6) **Paronychia:** Is the inflammation of tissue surrounding nails following an injury. It is common among diabetic patients.
7) **Foot odour:** Are result of excessive perspiration promoting micro organism growth.

Equipment:

A tray containing

1) A pair of scissors or a nail clipper.
2) Wet swabs in a small bowl.
3) A jug with water for washing hands.
4) A kidney tray with dettol 1 in 40 solution.
5) Soft nail brush.
6) A paper bag.
7) A towel.

Procedure:

1) Assemble articles at the bed side of the patient.
2) Explain the procedure to the patient and get his co-operation.
3) Place towel under the hands.
4) Wash hands of patient with soap and water. Use brush if the nails are very dirty, soak nails in water to cut them easily.
5) Cut finger nails to the shape of the nails. Cut toe nails straight across to prevent in growing toe nails. Take care not to injure the flesh.
6) Receive soiled wipers in the paper bag.
7) Wash hands and dry.
8) Clean and sterilize nail clipper/scissors and replace in their proper place.
9) Dispose of soiled wipers with the paper bag.

CARE OF THE HAIR : Care of the hair is a part of daily hygiene. A person's appearance and a feeling of well-being depend on the way the hair looks and feels hair growth, distribution and pattern can be indicators of general health status.

Proper hair care:

1) Frequent brushing helps keep hair clean and distributes oil evenly along hair shafts.
2) Short-tooth combs are adequate for short hairs.
3) Large – tooth combs are preferable for curly hair.
4) Avoid using combs with sharp and irregular teeth

Factors that affect the character of hair

1) Hormonal changes
2) Emotional and physical stress
3) Ageing
4) Infection
5) Certain diseases like cancer
6) Certain drugs like chemotherapy.

Common hair and scalp problems:

1) **Dandruff:** Dandruff is the scaling of scalp accompanied by itching. In severe cases, dandruff is found on eye brows.
2) **Pediculosis(lice):** Tiny grayish-white parasite insects infest human beings.
   a) **Pediculosis capitis (head lice):** Parasite is found on scalp attached to hair strands.
   b) **Pediculosis corporis (body lice):** Parasite clings to clothing and sucks blood.
   c) **Pediculosis pubis (crab lice):** Parasites are found in pubic hair.
3) **Hair loss (alopecia)**

Purposes:

1) To maintain cleanliness
2) To prevent matting.
3) To promote comfort
4) To remove dirt and dandruff by combing and brushing
5) To give exercises to scalp
6) To get an opportunity to examine the scalp and the hair of patients who are acutely ill.
7) To soothen the patient and to help induce sleep.

Equipment

A tray containing the following articles to be taken to the bedside.

1) Brush and comb
2) A little oil in a small bottle
3) Kidney tray with 1 in 40 dettol solution
4) Cotton swabs (wet)
5) Ribbon
6) Towel

Procedure

1) Arrange articles at the right side of the patient.
2) Explain the procedure to the patient and get her co-operation
3) Get the patient to sit up if her condition permits
4) Place a towel around the shoulders to prevent soiling her bed clothes.
5) Smear your finger with oil and apply on the scalp and hair.
6) Massage scalp in a circular movement to promote good circulation
7) Brush and comb hair free from tangles. Take a few strands of hair at a time. Hold it with your left hand tightly at the root of the hair to prevent pulling of hair and comb it from top to downwards. Wipe the comb with wet swabs and examine for pediculi. Dispose of soiled swabs in a paper bag.
8) Braid the hair and tie with ribbon.
9) Keep patient comfortable and clean and arrange the equipment.

ATTENDING HAIR CARE-WASHING

Purpose

1) To keep the hair clean and healthy.
2) To prevent itching, infection, infestation
3) To provide a sense of well being
4) To destroy pediculi

Supplies:

1) Combing-hair oil, comb and paper bag.
2) Washing

A) A tray containing

a) Hot and cold water in jugs.
b) A basin and a mug
c) Protective sheets-two, one large and one small.
d) A piece of bandage.
e) Soap/Shampoo
f) Little cotton in bowl
g) Wash cloth
h) Bath towel
i) Hot water bottle with cover.

B) Bucket-one

(N.B. Make a trough of large protective sheet with a piece of bandage rolled in it.)

For treating pediculosis

A) Pediculosis capits (Head louse)

- A gown for the nurse
- A tray containing
  a) Fine tooth comb
  b) Parasiticide
  c) Antiseptic lotion in a kidney tray and paper bag.
  d) Supplies for washing hair in bed (as above) in case patient is bed-ridden.

B) Pediculosis corporis or vestimenti (Body louse) –Refer Antiseptic Bath in procedure "Applying Hot Applications". Forceps to pick up lice from eye brows and eyelashes.

C) Pediculosis pubis (Crab louse)

- A tray containing
  a) Protective sheet and towel
  b) Bowl of warm water
  c) Razor and blade
  d) Soap and brush
  e) Antiseptic lotion in a kidney tray and paper bag.

Guidelines

1) **Combing**: Hair are combed and arranged in the style the patient prefers at least twice a day.
2) When washing the hair, follow as under

a) The patients are given hair wash at least once a week and bed-ridden patients are given hair wash in bed.

b) Avoid hair wash for the patient who has just taken meals atleast for an hour.

c) Avoid exposure and chilling by

- Keeping the patient covered with top clothes.
- Closing the windows and doors of the room
- Keeping the room warm
- Finishing the hair wash quickly

d) If the patient is very sick, note pulse before and after the hair wash.

e) Do not let the patient exert. Try to avoid exertion to the patient as far as possible.

3) When treating pediculosis, nurse must have following information.

a) The pediculi are small, grey coloured, blood sucking parasites which live for several days in the hair. The female lays about 50 eggs/nits which are grey or white in colour, cling to hair .

b) The symptoms of pediculi are

A) Itching

a) Scalp, neck and behind ears in head louse.

b) All over the body in body louse.

c) On and around the part affected in crab louse.

B) **Rash**

a) Neck and behind ears in head louse

b) All over the body in body louse

c) On and around the part affected in crab louse.

C) Sores

a) Scalp in head louse

b) Body in body louse

c) On the part affected in crab louse

The common parasiticides used are: a) Mediker . b) Cyban

Nursing Activity

a) Wash your hands and put on gown

b) Take supplies to the bedside

c) Maintain privacy by using screen

d) Explain the procedure to the patient

e) Give hair care

1) Combing

a) Loosen the hair

b) Apply oil to hair if necessary

c) Coomb and arrange the hair in the style the patient prefers.

d) If hair are braided, secure the end of braid.

e) Replace the supplies

2) Washing

1) Position the patient bringing head on the edge of bed and shoulders raised on a pillow so that head is slightly down.

2) Place the protective sheet and bath towel under the head.

3) Place the trough in the patient's neck and direct it into the bucket.

4) Place cotton in patient' ears and wash cloth over eyes.

5) Loosen the hair and remove hair pins

6) Mix hot and cold water and check the temperature of water at the back of hand.

7) Wet the hair, apply soap and shampoo and work up the lather.

8) Start cleaning at the hairline and work towards the back of the head and then to the front of head symmetrically. Massage the scalp first and then the hair with the finger tips. Add water as necessary to work up the lather.

9) Rinse thoroughly. Squeeze off water from the hair.

10) Wrap bath towel around the hair.

11) Remove the trough and slip the pillow under the head by raising head and shoulder. Place patients head on protective sheet over the pillow and rub the head gently with towel. Spread the hair out on bath towel with hot water bottle underneath to dry in winter.

12) When it is dry apply oil, comb it arrange in the style the patient prefers.

13) Remove, clean, dry, and replace the supplies.

1) Treating pediculosis

I) Prediculosis capits(Head louse)

1) Put on gown and follow first five steps of washing

2) Wet the hair , pour mediker on hair, massage the scalp first and then the hair with finger tips working from the hairline towards the back and then the front of the head symmetrically. Add water as necessary to work up the lather. Leave the hair in lather for five minutes and rinse.

3) Follow the procedure mentioned above.

4) Repeat the treatment within few days

5) Remove the supplies, wash and boil the supplies, soak gown, clothes and linen in carbolic solution 1:20 for four hours before sending to laundary.

II) Pediculosis corporis/vestimenti (Body louse)

1) Give a disinfectant bath
2) Apply antiseptic ointment to heal any injuries produced by scratching
3) Follow steps 4 and 5 as above

III) Pediculosis pubes (Crab louse)

1) The hair of affected areas (Pubes or Axillae) shaved and burnt.
2) Apply disinfectant into the areas and after some hours patient given bath.
3) In case eyebrows and eyelashes are affected, pick up lice with forceps and apply two percent of yellow oxide of mercury.
4) Follow step 5 as above
5) Wash your hands thoroughly

Recording

Record in the nurse's notes as under

1. **Combing:** any dandruff, pediculosis or any other abnormal condition regarding hair or scalp.
2. **Washing:** time of giving hair wash, soap, shampoo used, patients reaction.
3. **Treating pediculosis:** The time, parasiticide used and the effect of treatment.

QUESTIONS

PART A — ONE WORD ANSWERS: (One mark)

(a) Meaning of the following terms:

1. Cheilosis 2. Halitosis 3. Gingivitis
4. Callus 5. Decubitus ulcer 6. Paronychia
7. Allopecia

PART B — MULTIPLE CHOICE QUESTIONS: (One mark)

1) The term Pyorrhoea means
(a) Pus from the gums (b) Bleeding from the gums c) Bad breath

2) Oral hygiene helps to
(a) Maintain Healthy state of the mouth
(b) Stimulate appetite
(c) All the above

3) Coating of the teeth is called
a) Plaque b) Mucin c) Gingivae

4) Cheilosis is caused by
a) Thiamine deficiency b) Riboflavin deficiency c) Iron deficiency

5) Common sites for decubitus ulcer in supine position
a) Heels, sacrum, back of the head.
b) Knee, Ileum, side of the head.
c) Toes, knee, cheek and ears.

6) Signs of decubitus ulcer

a) Redness and discolouration

b) Burning sensation and headache

c) None of the above

7) The antiseptic solution used to clean decubitus ulcer

a) Dettol

b) Eusol and Hydrogen peroxide

c) Savlon

8) Water temperature for sponging

a) 105 degree to 107 degree

b) 100 degree to 104 degree

c) 99 degree to 100 degree

9) Sitz bath given for

a) Perineal surgery b) Abdominal surgery c) Abdominal pain

10) Pediculosis Capitis

a) Head lice b) Body lice c) Crab lice

PART C — WRITE THE SHORT ANSWERS: (5 Marks)

1) What are the types of therapeutic baths?

2) Mention the purposes of hair care?

3) List out the common foot and nail problems?

4) Write the symptoms of pediculosis?

5). Mention the Risk factors for oral problems?

6) What are the factors affecting the characters of hair?

PART D — WRITE IN DETAIL: (10 Marks)

1) List out the purposes of mouth care?

2) What are the factors affecting the characters of hair?

3) Mention the common oral problems?

4) Explain the causes for the decubitus ulcer?

5) Explain the predisposing factors of decubitus ulcer?

PART E — WRITE ESSAY: (20 Marks)

1) Describe the nurse's responsibilities in hair care?

2) Explain the procedure of mouth care?

3) Describe the steps in procedure of bed bath?

4) Mention the care of pressure points?

5) Describe the care of nail and foot?

RECORDING OF VITAL SIGNS.

TEMPERATURE, PULSE AND RESPIRATION

Articles Required:

- Clean tray containing three/four thermometer in a bottle containing dettol lotion 1:40 with some cotton at the bottom of the bottle
- Kidney tray/paper bag

- Bottle containing plain water with some cotton at the bottom of the bottle
- Cotton swabs, soapy swabs, wet swabs and dry swabs Pen, chart, watch with second hand pulse meter

Your responsibility for taking TPR (temperature, pulse, respiration)

- Identify the patient
- Check the diagnosis
- Ability to retain thermometer
- Previous measurement and range of TPR

Procedure

- Wash the hand before and after the procedure
- Thermometer are disinfected in a proper disinfectant to prevent cross infection for the required tome
- Before proceeding determine the route of taking temperature
- Before taking oral temperature check whether the patient had any hot or cold drinks, chewing gum/betel leaves. Wait for atleast 15 minutes
- Before placing the thermometer in the mouth rinse the thermometer in cold water to remove all disinfectants
- Do not use hot water for washing thermometer
- Before placing thermometer in position wipe it from the bulb to stem to keep the bulb clean
- After taking the thermometer wipe it from stem to bulb to avoid contaminating the fingers of the care giver with saliva and faeces.
- Bring down the level of mercury to obtain accurate reading
- If oral temperature is taken instruct the patient not to bite on it
- Never leave the patient along with thermometer in position
- Read the thermometer at eye level against light
- Never hold thermometer at the bulb
- Use separate thermometer for patients suffering from infectious diseases
- Store thermometer properly
- Record TPR immediately and accurately
- Never make the patient conscious that you are counting his respiration
- Count the inspiration only note the characteristics of respiration
- Never count the respiration when the patient is in the state of tension
- Explain the procedure to the patient
- Tell the patient not to drink, eat or chew betel leaves 15 minutes prior to the taking of oral temperature
- Place the patient in comfortable position
- Keep the hand over the chest ready for taking the pulse
- Keep the thermometer tray at the bed side with necessary

After care of the patients and articles:

- Make the patient comfortable
- Tidy up the unit
- Discard the cotton swabs
- After infecting the thermometer it should be washed, dried, and put in other containers and store them in their proper place
- Wash and refill the bottles with clean lotions so that they are ready for the next use
- If any thermometer is broken it should be replaced immediately
- See that all the equipment are in order
- Wash hands
- If any changes in vital signs inform the doctor
- If the temperature is very high cold therapy may be started.

TEMPERATURE BY AXILARY METHOD

1) Before placing the thermometer, dry the axilla
2) Place the bulb of the thermometer in the axilla so that the bulb is in touch with the skin folds of axilla .
3) Keep the thermometer in position by placing the arm over the chest
4) Do not allow clothing to come in contact with the bulb of the thermometer
5) Have the thermometer in place for 2 minutes. In auxiliary method leave the thermometer in position for 5 minutes
6) Count the pulse and respirations while the thermometer is still in place
7) Place the patients hand over his chest with the wrist extended and the palm downwards. Place the finger tips over the pulse point
8) Holding the watch in the left hand, start to count the pulse rate with zero then 1,2 etc.
9) If the pulse is regular, count the number of pulsations for half minute and multiply it by two. If the pulse is not regular, count the rate for one full minute
10) Continue palpation of the pulse to assess the rhythm, volume, tension and irregularity
11) With the right hand still on the pulse count respiration by watching the rise of the chest, with out the knowledge of the patient
12) If the respirations are normal count the number of respirations in the 30 seconds and multiply by 2. If the respirations are abnormal, count the rate for full one minute and note the pattern of breathing
13) Remove the thermometers after 2 minutes (after 5 minutes in case of auxillary method). Wipe the thermometer from the stem to the bulb with a clean cotton swab, using rotating movements. Discard the swab

14) Read the level of mercury

15) Return the thermometer to the bottle no:2 shaking it down again

16) Wash hands

17) Record the temperature, pulse and respirations immediately before proceeding to take another patients temperature

RECORDING OF RECTAL TEMPERATURE

1) Wash hands

2) Draw curtain around bed or close room door. Assist client to sim's position with proper leg fixed. Move aside bed linen to expose only anal area. Keep clients upper body and lower extremities covered with sheet or blanket

3) Apply disposable gloves

4) Hold end of glass thermometer with finger tips

5) Read mercury level while gently rotating thermometer at eye level. If mercury is above desired level, grasp tip of thermometer securely, stand away from soiled objects and sharply flick wrist downward. Continue shaking until reading is below 35.5°celcius or 95.9°farenheit

6) Insert thermometer into plastic sleeve cover

7) Squeeze liberal amount of lubricant on tissues. Dip thermometer blunt end into lubricant covering 2.5 to 3.5 cm for adults

8) With non dominant hand separate clients buttocks into expose anus. Ask the client to deep breath slowly and relax

9) Gently insert thermometer into anus in the direction of umbilicus 3.2 cm for adults. Don't force the thermometer

10) If resistance is felt during inserting, withdraw the thermometer immediately. Never force the thermometer

11) Hold thermometer in place for 2 seconds or according to agency policy

12) Carefully remove thermometer, discard plastic sleeve cover in appropriate container, and wipe off any remaining secretions with clean tissue. Wipe in rotating fashion from fingers toward bulb. Dispose of tissues in appropriate container

13) Read thermometer at the eye level. Gently rotate until scale appears

14) Wipe client's anal area with soft tissue to remove lubricant or feces and discard tissue. Assist client in assuming a comfortable position

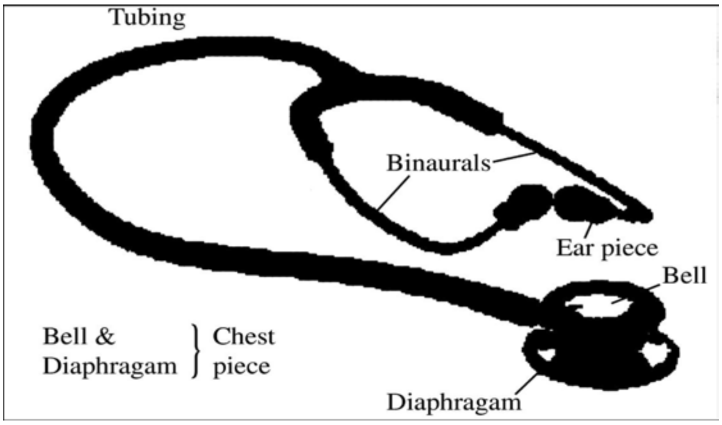
15) Remove and dispose of gloves in appropriate container

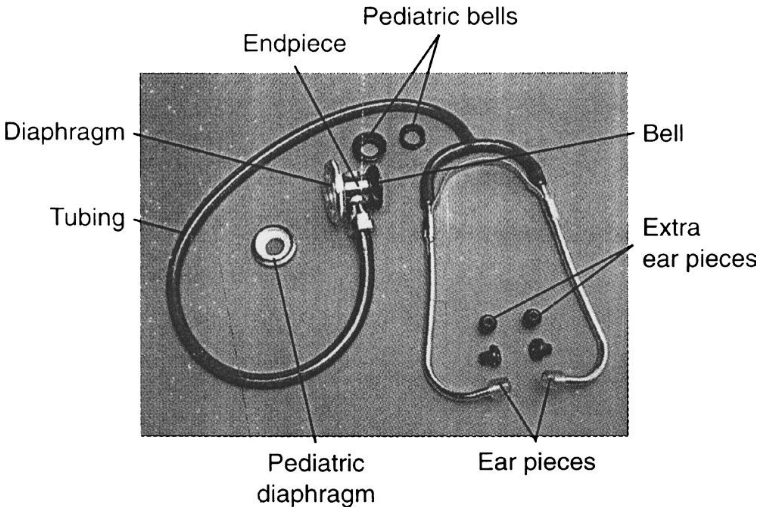
16) Wash hands

BLOOD PRESSURE

Articles and equipments required

- Sphygmomanometer : To measure arterial pressure
- Bladder and cuff: To exert equal pressure around the artery being auscultated
- Stethoscope: Auscultates arterial pressure waves
- Pen, pencil and flow chart: For timely documentation of findings





Procedure:

- Wash hands
- Support the clients forearm at heart level with palm turned up
- Expose upper arm fully by removing any constricting clothing
- Palpate brachial artery. Position cuff 2.5 cm above site of brachial pulsation
- With cuff fully deflated, wrap the cuff evenly around the upper arm
- Palpate the brachial artery or radial artery with fingertips of one hand while inflating cuff rapidly to pressure 30 mm of Hg above point at which pulse disappears. Slowly deflate the cuff and note point when pulse disappears.
- Deflate cuff fully and wait for 30 seconds
- Place the stethoscope ear pieces in ear and be sure sounds are clear, not muffled
- Relocate brachial artery and place bell or diaphragm over it without touching the clients clothing
- Close value of pressure bulb clockwise until tight
- Inflate cuff to 30mm Hg above palpated systolic pressure
- Slowly release value and allow mercury to fall at rate of 2-3mm Hg/sec
- Note point on manometer when first clear sound is heard
- Continue to deflate cuff gradually, noting point at which muffled or dampened sound appears
- Continue cuff deflation, noting point on manometer at which sound disappears
- Remove the cuff from patients arm after deflating
- Wash hands

Skill sequence for blood pressure recording:

- Record the blood pressure on the observation chart
- Document any abnormalities or irregularities and report them to the medical team
- The expected outcome is that the blood pressure is within the normal average range when the cardiovascular status is normal
- The unexpected outcome is that the blood pressure is above of below the expected range for clients age
- When measured before administration of any antihypertensive. Some institutions recommended recording pressure on medication chart.

QUESTIONS

PART A — ONE WORD ANSWER: (One mark)

1) Temperature

2) Pyrexia.

3) Blood pressure.

4) What is the formula for converting Fahrenheit in to Celsius.

PART B — WRITE THE SHORT ANSWER: (5 marks)

1) What are the types of pulse.
2) Mention the types of thermometer.
3) Parts of stethescope
4) What are the contraindications for oral temperature.
5) What are the advantages of axilla temperature.
6) What are the articles needed for temperature.

PART C — WRITE IN DETAIL: (10 marks)

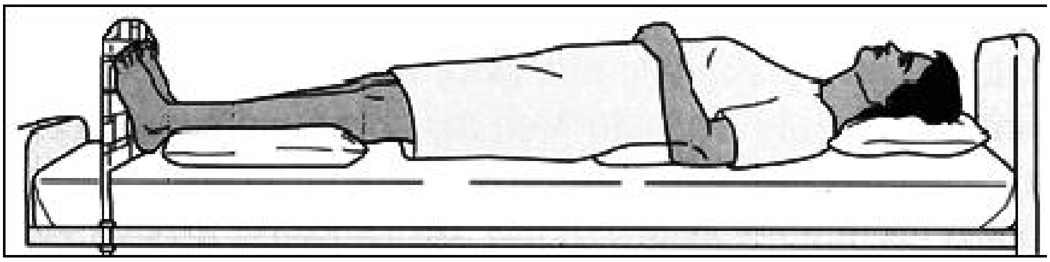
1) Explain the procedure of taking temperature
2) Explain the steps in procedure of blood pressure .

POSITIONING OF THE PATIENT

Supine position

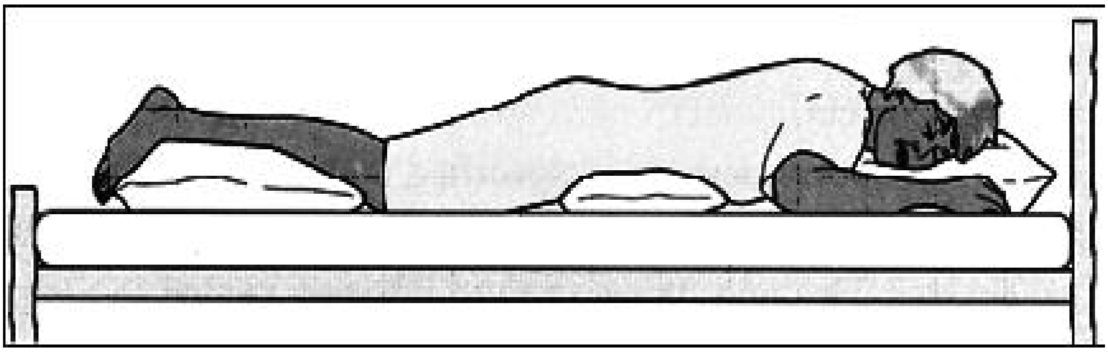
This position may be employed to advantage many times when the necessity for drainage does not require the fowler position. It is believed that when the patient is flat in bed, respiration often is more free and turning is easier, advantages that are important in the prevention of respiratory complications.

1) The head is inline with the spine, both laterally and anteroposteriorly.
2) The trunk is positioned so that flextion of the hips is minimzied.
3) The arms are flexed at the elbow with the hands resting against the lateral abdomen.
4) The legs are extended with the small, firm support under the popliteal area.
5) The heals are suspended in a space between the mattress and the footboard.
6) The toes are pointed straight up.
7) The tochanter tolls are placed under the greater tocahanters in the hip joint areas.



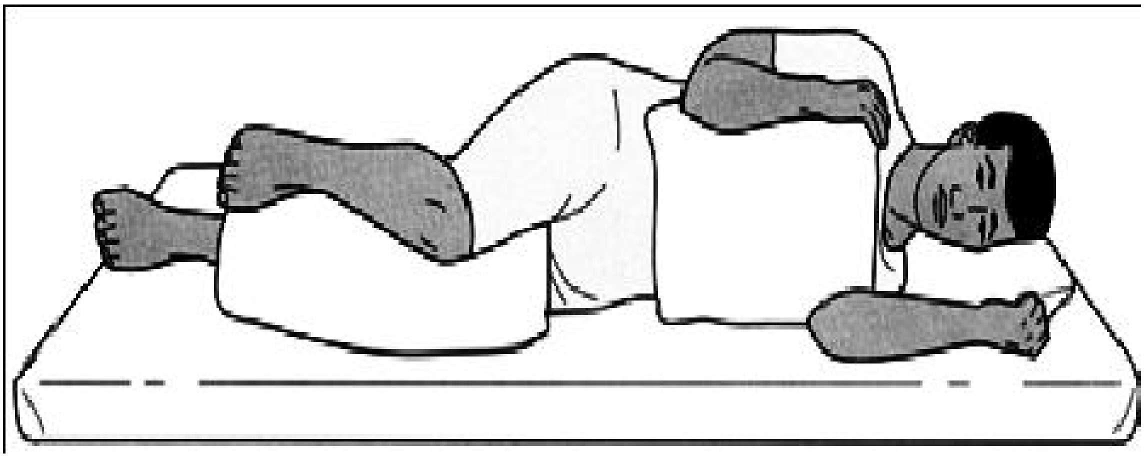
Prone Position:

In the prone position, the client lies on the abdomen with the head turned to one side. The hips are not flexed. Both children and adults often sleep in this position, sometimes with one or both arms flexed over their heads (Figure 34-16). This position has several advantages. It is the only bed position that allows full extension of the hip and knee joints. When used periodically, the prone position helps to prevent flexion contractures of the hips and knees, thereby counteract-ing a problem caused by all other bed positions. The prone position also promotes drainage from the mouth and is especially useful for unconscious clients or those clients recovering from surgery of the mouth or throat.



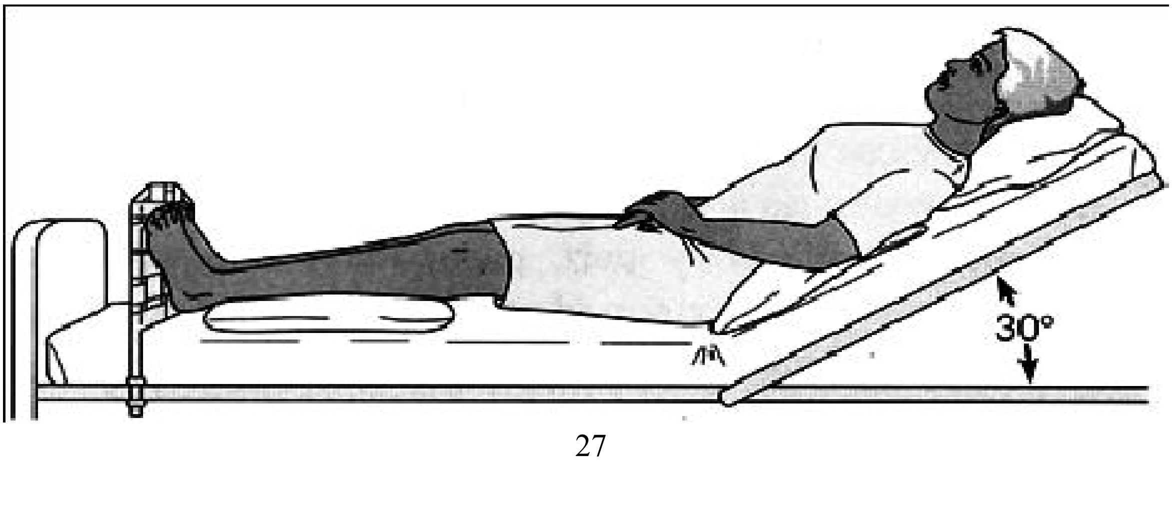
Lateral Position

Lateral position with pillows in place tuck-back pillow behind client's back. (Make by folding pillow lengthwise. smooth area is slightly tucked under client's back.) Place pillow under semiflexed upper leg level at hip from groin to foot.

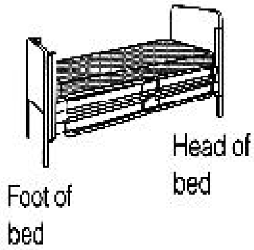
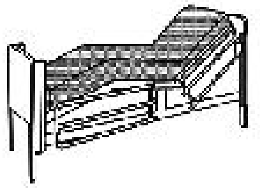
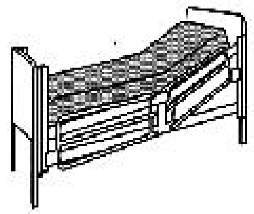
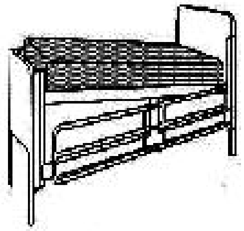
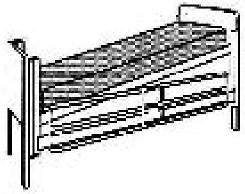


Fowler's Position:

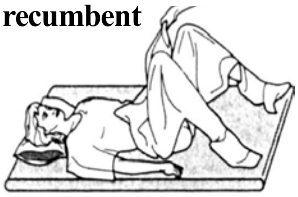
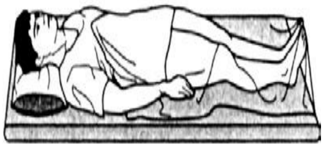
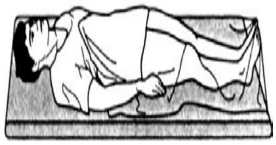
Off all the positions prescribed for a patient, perhaps the most common, as well as the most difficult to maintain is the Fowler's position. The patient's trunk is raised to form an angle of from 60 to 70 degrees with the horizontal plane. This is a comfortable sitting position. The patient's with abdominal drainage usually are put in Fowler's position as soon as they have recovered conciousness, but great caution must be observed in raising the bed.

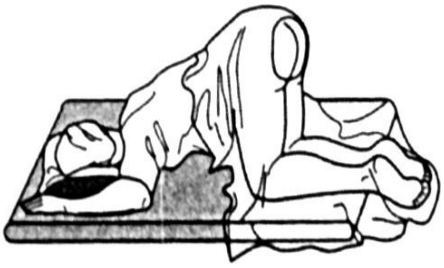
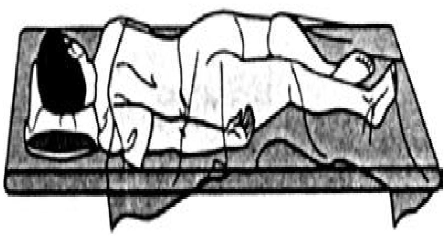
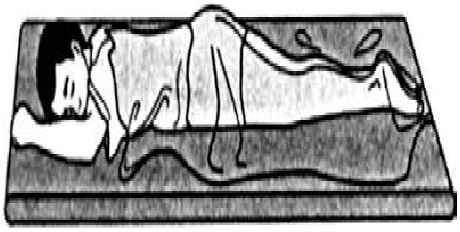


Commonly used Bed Positions:

POSITION	DESCRIPTION	INDICATION FOR USE
Flat 	Mattress is completely horizontal	Client sleeping and a variety of bed positions such as back-lying, side-lying and prone(face down)To maintain spinal alignment for clients, With spinal injuries
Fowler's position 	Semi sitting position in which head of bed is raised to angle of at least 45 degrees. Knees may be flexed or horizontal	To assist patients to move and turn in bed by nurse Convenient for eating, reading, visiting, watching TV Relief from lying positions
Semi-Fowler's position 	Head of bed raised only to 30 degree angle	To promote lung expansion for client with respiratory problem To assist a client to sitting position on the edge of the bed, Relief from lying position, To promote lung expansion
Trendelenburg's position 	Head of the bed lowered and the foot raised in a straight incline	To promote venous circulation in certain patients To provide postural drainage of basal lung lobes
Reverse Trendelenburg's position 	Head of bed raised and the foot lowered Straight tilt in direction opposite to Trendelenburg's position	To promote stomach emptying and prevent esophageal reflex in clients with hiatal hernia

POSITIONS AND BODY AREA EXAMINED

POSITION	DESCRIPTION	AREA EXAMINED
Dorsal recumbent 	Back-lying position with knees flexed and hips externally rotated; small pillows under the head	Head and neck, axillae, anterior thorax, lungs, breasts, heart, abdomen, extremities, peripheral pulses, vital signs and vagina
Horizontal recumbent 	Back-lying position with legs extended; small pillow under the head	Head, neck, axillae, anterior thorax, lungs, breasts, heart, extremities, peripheral pulses
Dorsal (Supine) 	Back-lying position without a pillow	As for horizontal recumbent
Sitting Position	A seated position, back unsupported and legs hanging freely	Head, neck, posterior and anterior thorax, lungs, breasts, axillae, heart, vital signs, upper and lower extremities, reflexes
Lithotomy	Back-lying position with feet supported in stirrups; the hips should be in line with the edge of the table	Females genitals, rectum and female reproductive tract

POSITION	DESCRIPTION	AREA EXAMINED
Genupectoral (knee-chest) 	Kneeling position with torso at a 90^0 angle to hips	*Rectum*
Sim's 	Side-lying position with lowermost arm behind the body and uppermost leg flexed	*Rectum, vagina*
Prone 	Face-lying position, with of without a small pillow	*Posterior thorax, hip movement*

QUESTIONS

PART A — ONE WORD ANSWERS: (One mark)

Meaning of the following

1. Prone position
2. Lateral position
3. Fowlers position
4. Trendelenburg position
5. Lithotomy position

PART B — WRITE IN DETAIL: (10 marks)

1.Explain the indications for using bed positions

VOCATIONAL NURSING
HIGHER SECONDARY
FIRST YEAR
PRACTICALS - II

PRACTICALS – II

S.No.	Procedure	Date		Signature
		Ward	Classroom	
I	Demonstration Hand washing and scrubbing technique Wearing of Gloves Masks Apron			
II.	Transfering, Lifting & shifting of patients			
III.	Giving and removing of Bed pan & Urinal			
IV.	Application of bandages Spiral bandage Reversed spiral bandages Figure - of eight Divergent spica Elbow bandage Capline bandage Large arm sling Cuff & Collar sling Triangular bandage Improvised sling			
V	Range of motion exercises			
VI	Enema			
VII.	Cardio - pulmonary resusititation			

CONTENTS

Nursing Laboratory hours – 200 periods
Clinical hours – 80 periods

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HAND WASHING AND SCRUBBING TECHNIQUE

Hand washing

Definition: A technique of cleaning hands developed to prevent transmission of microorganisms.

Hand washing is a vigorous, brief rubbing together of all surfaces of hands lathered in soap, followed by rinsing under a stream of water. The purpose is to remove soil and transient organisms from the hands to reduce to microbial counts over time.

Purposes: 1) Cleanliness 2) Aesthetic 3) Remove soil and transient organism.
4) Reduce the total microbial counts over time. 5) To prevent cross infection.

Indication: 1) At the end of each task.

2) Before going into clean areas or handling clean articles.

3) Before surgical procedure, delivery.

4) Before serving or eating food.

5) At any time when necessary.

Situation for hand washing: Garner and **Favero** recommend that nurses wash hands in the following situations.

1) Before contact with clients who are susceptible to infection.
   ex. Newborn infants, clients with leukemia, clients who are HIV positive
2) After caring for an infected client.
3) After touching organic material .
4) Before performing invasive procedure such as administration of injections, catheterization and suctioning.
5) Before and after handling dressings or touching open wounds.
6) After handling contaminated equipment.
7) Between contacts with clients in high risk units.
8) After removal of sterile and non-sterile gloves.

Steps of effective hand washing:

Step 1: Wash palms and fingers.

Step 2: Wash back of hands

Step 3: Wash fingers and knuckles.

Step 4 Wash thumbs.

Step 5: Wash finger tips.

Step 6:Interlocking of hands.

Step 7: Wash wrists.

Guidelines for Maintaining Hand Washing:

1) Cut nail shorts to prevent accumulation of dirt.
2) Remove jewellery to ensure thorough cleaning.
3) Remove the wrist watch and push long uniform sleeves above wrists.
4) Inspect the surface of the hands and fingers for breaks or cuts in skin and cuticles.

Medical Hand Washing

Equipments:

1) Easy to reach sink with warm running water
2) Antimicrobial soap / Regular soap.
3) Clean towel.

Procedure:

1) Remove wrist watch and push long uniform sleeves above wrists.
2) Avoid wearing rings
3) Be sure finger nails are short and filed.
4) Stand in front of sink, keeping hands and uniform away from sinks surface. (if hands touch sink during hand washing repeat it.)
5) Open tap and wet elbow hand (hold hands below level).
6) Avoid splashing water against uniform.
7) Regulate flow of water so that temperature is warm.
8) Wet hands and lower arms thoroughly under running water. Keep hands and forearms lower than elbows during washing.
9) Apply 1 ml of regular or 3 ml of antiseptic liquid soaps to hands lathering thoroughly.
10) Wash hands using plenty of lather and friction for atleast 10 to 15 seconds.
11) Interlock fingers and rub palms and back of hands with circular motion atleast 5 times each.
12) Areas under nails are often soiled clean them with nails of other hand or clean stick.
13) Rinse hands and wrist thoroughly keeping hands down and elbow up.
14) Dry hands thoroughly from fingers to wrist and forearms with towel
15) Discard towel in soiled bin.
16) Turn off water

SURGICAL HAND WASHING / SCRUB: Aseptic technique is designed to eliminate all micro organisms, including spores and pathogens, from an object and to protect an area from micro organisms.

ARTICLES: 1) Soap / antiseptic detergent. 2) Running warm water – to rinse soap and thorough hand wash. 3) Nail brush in antiseptic lotion. 4) Mask and cap.

PRINCIPLES:

1) A sterile object remains sterile when touched only by another sterile object.
2) Only sterile objects may be placed on a sterile field.
3) An object held below a person's waist is contaminated.
4) A sterile object becomes contaminated by prolonged exposure to air.
5) When a sterile surface comes in contact with a wet contaminated surface sterile object.

STEPS TO PROCEDURE:

1) Ensure that nails are short.
2) Inspect hands for abrasions and cuts.
3) After medical hand wash, wear cap and mask.
4) Turn on water.
5) Wet hands and arms under running lukewarm water and lather with soqp to 5cm above the elbows.
6) Hand should be held above elbows. Use circular movements to wash palms, back of hands, wrists, forearms and interdigital spaces for 20-25 Seconds.
7) Rinse hands and arms thoroughly under running water.
8) Clean under nails of both hands.
9) Scrub nails of each hand with 15 strokes using microbial agent .
10) Holding the brush perpendicular scrub palm, each side of thumb and fingers and posterior side of hand with 10 strokes each.
11) Scrub from wrist to 5 cm above each elbow.
12) Entire scrub should last for 5 to 10 minutes.
13) Discard brush to soiled bin.
14) Take care not to touch the tap or sides of the sink during the procedure.
15) Use a sterile towel to dry one hand moving from fingers to elbow.
16) Repeat drying of the other hand using a different towel / Use one side to dry one hand reverse side for other hand, if only one towel is available.
17) Discard towel to the soiled bin.
18) One assist person to stay while surgical hand washing

AFTER CARE:

1) Turn off water.
2) Towel should be sent to laundary for washing.
3) Washed nail brush to be kept in disinfectant solution tray.
4) Soap to be kept in soap box, and antiseptic solution to kept in cupboard.

QUESTIONS

PART A — WRITE THE SHORT ANSWERS: (5 marks)

1) Define handwashing.
2) What are the purposes of handwashing ?
3) What are the indications for handwashing ?
4) Define surgical handwashing ?

PART B — WRITE IN DETAIL: (10 marks)

1) Steps of effective hand washing.
2) Guidelines for maintaining handwashing.
3) Principles of surgical handwashing.

PART C — WRITE ESSAY: (20 marks)

1) Write in detail about medical handwashing?
2) Write in detail about surgical hand washing?

WEARING OF GOWN, GLOVE, AND MASK

GOWNING: Clean or disposable gowns or plastic aprons are worn during procedures when the nurse's uniform is likely to become soiled.

INDICATION:

1) When the nurses changes the dressings of a client with extensive wounds, burns.
2) During delivery procedure and surgical procedure.
3) Client with more succeptable to infection.
4) For strict aseptic diagnostic procedures like FNAC, lumbar puncture, bone marrow biopsy etc.

PURPOSE:

1) To prevent soiling of clothing during contact with the patient.
2) To protect health care personnel from coming in contact with infected materials.

STEPS TO PROCEDURE

1) Pick up a sterile gown and allow it to unfold keeping inside of the gown towards the body without allowing the outside of the gown to touch any area.
2) With hands at shoulder level, slip both arms into armholes simultaneously. Ask the assisting nurse to bring the gown over shoulders
3) The assisting nurse fastens the ties at the neck. Overlap the gown at the back as much as possible and fasten the waist, ties or belt.
4) Prevent the gown from becoming wet
5) While removing avoid touching soiled parts on the outside of the gown. Roll up the gown with soiled part inside and discard in the appropriate container.

GLOVING: Gloving is defined as the putting on of a pair of sterile gloves to protect one's own hand from pathogenic micro organisms and to avoid contamination of a sterile area by hand.

PURPOSE:

1) To protect the nurse from the pathogenic micrtoorganisms.
2) To safely use her hands to handle without contaminating any objects.

INDICATION:

1) Contact with open wound
2) For strict aseptic diagnostic procedures.
3) Handle with infected materials like blood, urine, faeces etc.
4) Nurse or health personnel with any cut injury in hands or fingers.
5) For surgical procedure and delivery procedure

TYPES:

1) Closed method.
2) Open method
3) Plunge method.

USES:

1) It reduce the likelihood of the nurse's transmitting their own endogenous micro organisms to individuals receiving care.
2) It help to prevent cross infection.
3) It help to maintain the infection control.

STEPS TO PROCEDURE:

1) When the glove packet is collected from the autoclaved bin and placed flat on the sterile towel.
2) The packet of powder is removed from the glove pack and the hands are powdered.
3) Identify right and left hand.
4) Pick up the left glove with the right hand, by the inside turned down cuff.
5) Carefully push the fingers of the left hand into the glove until it reaches the cuff.
6) Pick up the right glove by putting the gloved hand under the cuff.
7) Carefully push the fingers of the right hand into the gloved hand into the glove and pull the glove cuff over the cuff of the gown.
8) Now pull the cuff on the left glove completely over the gown cuff to the left hands.
9) Adjust the gloves.

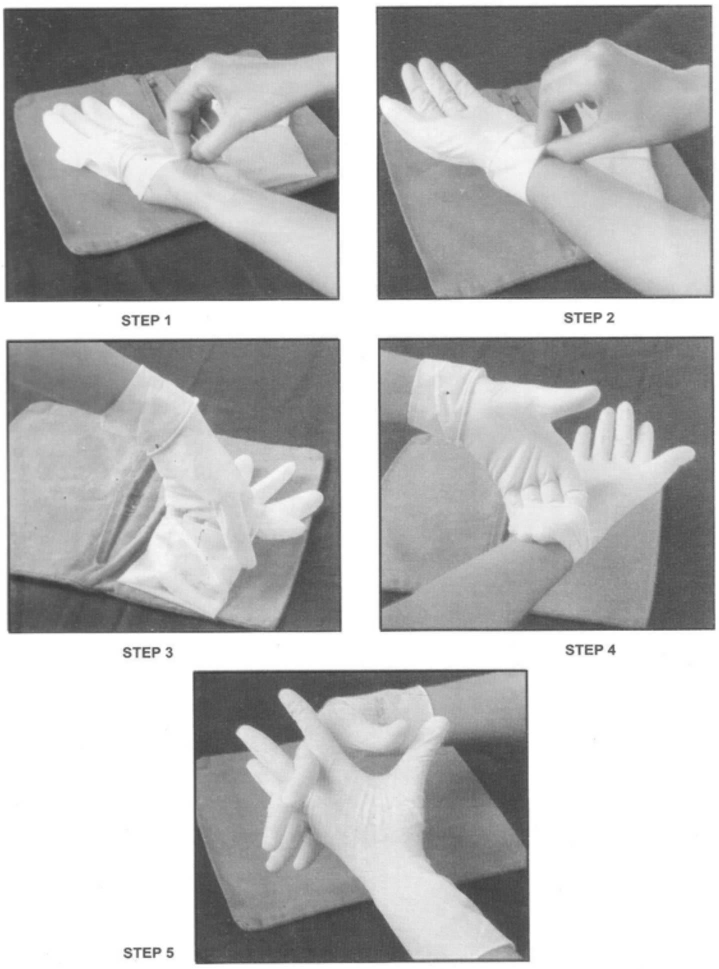


Figure 4.1.4: Gloving Technique

WEARING MASK: Mask are worn to reduce the risk for transmission of organisms by the droplet contact, air borne routes, and splatters of body substances.

PURPOSE:

1) The mask should be worn by personnel who work close to the client if the infection is transmitted by large particle aerosols . eg. Measles, mumps, acute respiratory diseases in children.
2) The mask should be worn by all personnel entering the room if the infection is transmitted by small particle aerosols (droplet nuclei) eg.pulmonary tuberculosis.

STEPS TO PROCEDURE:

1) Find top edge of mask (usually has thin, metal strip along edge)
2) Hold the mask by top two strings. Tie two top ties at the top of the back of the head with ties above ears.
3) Tie two lower ties snugly around the neck with the mask well under the chin.
4) Ensure that the mask covers the mouth and the nose adequately.
5) If glasses are worn, fit the upper edge of the mask under the glasses

6) Avoid unnecessary talking and, if possible, sneezing or coughing.
7) When removing a mask with strings, first untie the lower strings of the mask.
8) Discard a disposable mask in the waste container.
9) Wash the hands if they have become contaminated by accidentally touching the soiled part of the mask.

QUESTIONS

PART A— WRITE THE SHORT ANSWERS: (5 marks)

1) What are the purposes of gowning ?
2) Define gloving?
3) What are the purposes of wearing masks?
4) What are the types of gloving?

PART B — WRITE IN DETAIL: (10 marks)

1) Indications of gowning.
2) Uses of gloving.
3) Indications of gloving.
1) Write in detail about gloving ?

LIFTING AND TRANSFERING THE PATIENTS FROM BED TO STRETCHER & STRETCHER TO BED

Articles Required

1) Hospital bed
2) Wheel chair (lock the brakes)
3) Transfer belt (optional)
4) Side rails
5) Non slip footwear
6) Sheet for lifting
7) Stretcher (lock the brakes)

Principles to be followed in lifting/transferring of patient

- Broaden the base of support by placing the feet farther apart
- Bend the knees to lower the body to the object(patient)
- Keep the body close to the object as possible
- Tighten the abdomen and buttock muscle and breath normally
- Shift the position of feet, rather than twisting the back

Requirements in transferring

- Transfer surfaces must be firm rather than soft(because of energy is transferred)
- Stabilize the surfaces by applying brakes/locking the wheels
- Side rails one on when lying and half or off when turning position getting out respectively
- Patient can use trapeze bars if upper arm has strength

Preliminary assessment of patient

1. Assess the patients for following:

- Muscle strength
- Joint mobility and contracture formation(arthritis)
- Paralysis or paresis
- Orthostatic hypotension(risk of fainting)
- Activity tolerance
- Level of comfort(pain)
- Vital signs

2. Assess the patients sensory status

- Adequacy of central and peripheral vision
- Adequacy of hearing
- Loss of peripheral sensation
- Cognitive status

3. Assess for any contra indications to lift or transfer

- Check for the doctors order
- Assess patients level of motivation
- Patients eagerness
- Whether patient avoids activity
- Assess previous mode of transfer
- Assess patients specific risk for falling when transferred
- Assess special equipments needed to transfer
- Assess for safety hazards
- Perform hand hygiene
- Explain procedure to patient
- Transfer the patient

After care:

- Following each transfer assess the patients body alignment, tolerance, fatigue, comfort
- If the patient is transferred to bed after transfer, side rails are raised

- If the patient is transferred to wheel chair the brakes are released before moving the patient
- Record the procedure accurately. The patients performance is also recorded
- Any difficulty of disruption occurred during the transfer is also recorded with date and time
- The patients comfort, vital signs are all recorded

Procedure:

- Transferring a patient from a bed to stretcher
- An immobilized patient who must be transferred from a bed to a stretcher requires a three person carry or two person carry
- Another method is using a sheet to lift

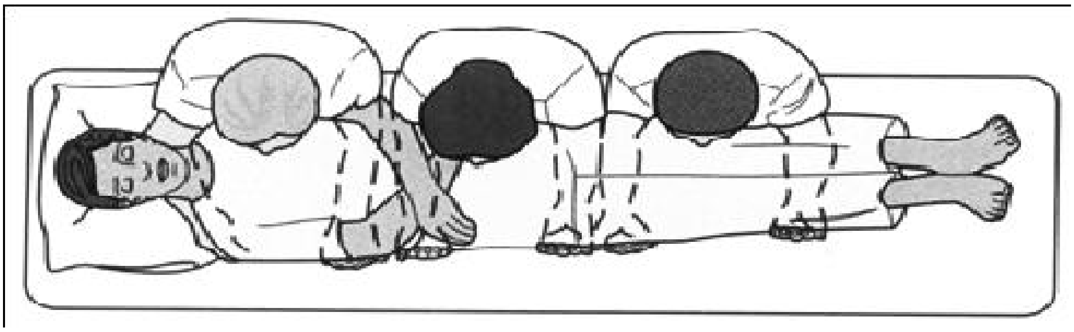
Transferring a patient from a bed to stretcher:

- Three of you should stand side by side facing of patients bed
- Each person assumes responsibility for one of three areas

  a) Head and Shoulders

  b) Hips and thighs

  c) Ankles
- Perform three-person carry from bed to stretcher(Bed at Stretcher level)
- Three persons stand side by side facing side of patients bed
  1. Each person assumes responsibility for one of three areas: head and shoulders, hips and thighs, and ankles
  2. Each person assumes wide base of support with foot closer to stretcher in front and knees slightly flexed
  3. Arms of lifters are placed under clients head and shoulders, hips and thighs, and ankles with fingers securely around other side of clients body(see illustration)
  4. Each person should assumes wide base of support with foot closer to stretch in front and knees slightly flexed
- Arms of lifters are placed under patient
- Head and shoulders, hips and thighs, ankles with fingers security and other side of patients body
- Lifters should roll patient towards their chests on count of three; patient is lifter and holded against three persons
- On second count three of you should back and pivot towards stretcher moving forward if needed
- Gently lower the patient on to center of stretcher by flexing knees, hips until elbows as a level with edge of stretcher
- Assess the patients alignment, place safety straps across body raise side rails

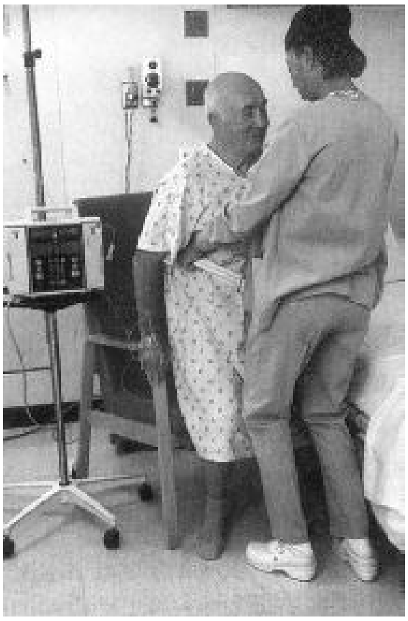


TRANSFER PATIENT FROM BED TO WHELL CHAIR

- **demonstrate the transferring the patient from bed to wheel chair**

Transferring a patient from bed to wheel chair:

- Assist the patient to sitting position on side of bed. Have the wheel chair(lock the brakes at its 45° angle to bed
    - Apply transfer belt(if present)
    - Ensure that the patient has stable non skid shoes. Weight bearing or strong leg is placed forward weak foot back
    - Spread feet apart
    - Flex hips and knees aligning knees with patients knees
    - Grasp transfer belt from underneath
    - Rock patient up to standing position on count of three while straightening hip and legs and keeping knees slightly flexed
    - Maintain stability of patients weak or paralytic leg with knee
    - Pivot on foot farther from chair
    - Instruct the patient to use arm rest on wheel chair for support and ease into chair
    - Assess the patient for proper alignment for sitting position
    - Provide support for paralysed extremities
    - Praise the patient progress, effort or performance



QUESTIONS

PART A — WRITE SHORT NOTES: (5 marks)

1 Write about lifting and transferring of patients?

2. Mention the preliminary assessment of patient before procedure?

3. What is the after care of patient transferred from bed to stretcher?

PART B — WRITE IN DETAIL: (10 marks)

1. Explain the procedure of transferring the from bed to stretcher?
2. Explain the procedure of transferring the from bed to wheel chair?

GIVING AND REMOVING OF BED PAN & URINAL

OFFERING URINAL

Definition:

Bed rest or immobility can interfere with micturition (act of passing urine) it does not allow the patient to have the normal position for emptying the bladder.

The nursing bed side assistant assists the bed ridden women to use a bedpan for voiding. For a man who has not been able to reach the toilet facilities he may stand at the bedside and void into a plastic of metal receptacle for urine. If he is unconscious or unable to stand at bedside the assistant needs to assist him to use the urinal.

Purpose:

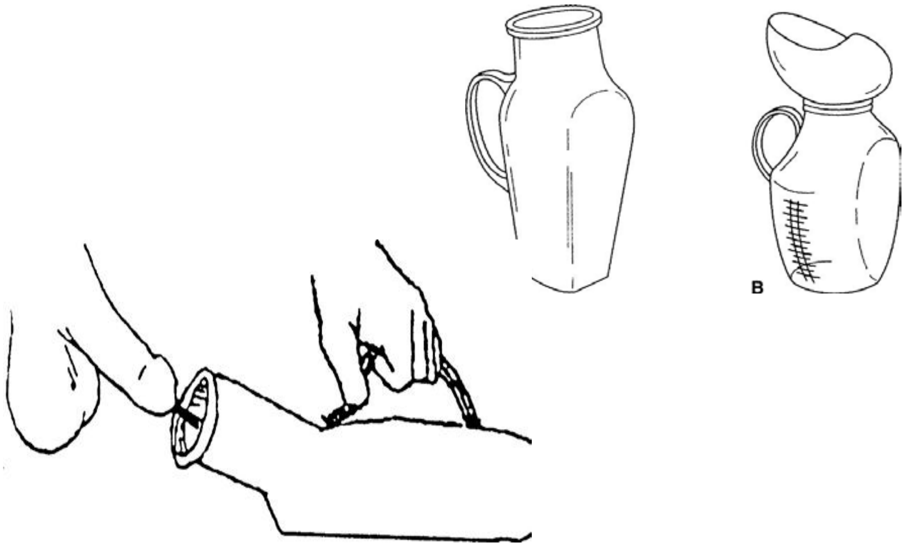
- Provide a container for collection of urine
- To measure the urine output
- For observation of color and consistency of urine

Indications:

For patient with impair mobility due to surgery, fracture, injury

Elderly man (aging impairs micturation) may require urinal more frequently to avoid urinary incontinence

For mobile person who is able to go to bathroom, does not require urinal. Encourage the patient to go to bath room.



OFFERING BED PAN

Objectives: at the end of this lesson you shall be able to

- recognize type of bedpan
- purposes of bedpan offering
- indications for bedpan

Types of bedpan:

Regular bedpan

Made of metal or hard plastic has a curved, smooth upper end and a tapered lower end. The pan is approximately 5cm deep

Fracture pan

Designed for patients with body or leg casts, the shallow upper end approximately 1-3cm deep that slips easily under the patient

Offering bedpan

A bedpan for patients confined to bed provides a means to collect stool

Female bedpan to pass urine and feces, For male bedpans only for defecation

Sitting on a bedpan can be extremely uncomfortable. The caregiver should help the patient assume a position similar to the natural squatting position.

Purposes

The nursing assistance paces and removes the bedpan to bed to bed ridden patients

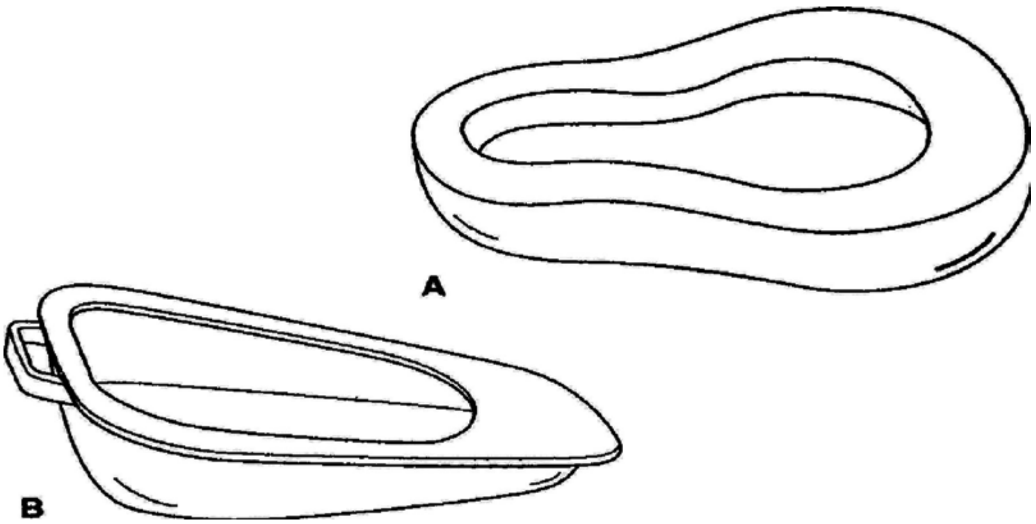
For bowel elimination when the patient is not permitted to go out of bed

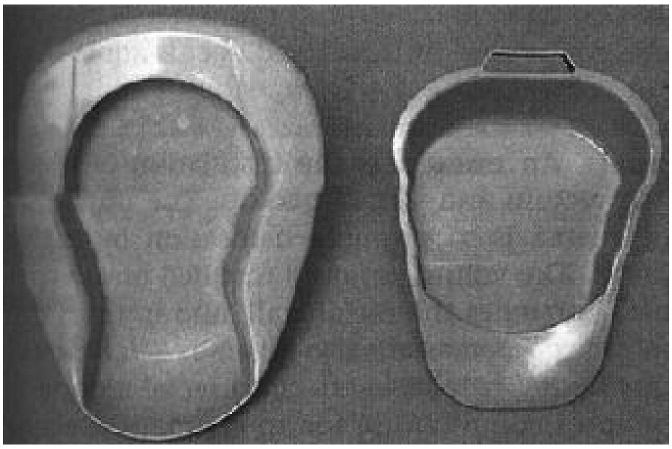
Obtain a stool specimen

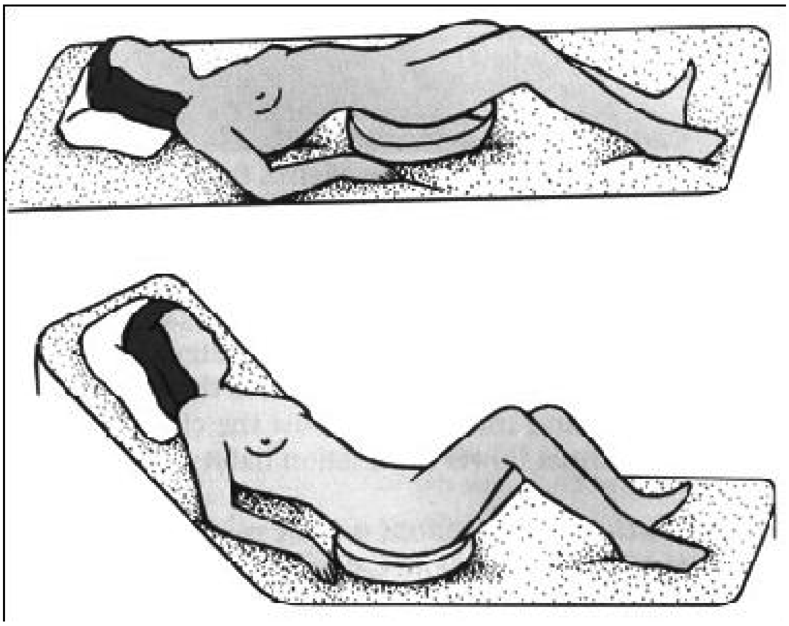
During bowel training, it facilitates bowel incontinence

Indication:

For the patients restricted to bed must use bedpan for defecation. Patients with fracture or injury use bedpans.







QUESTIONS

PART A — WRITE SHORT ANSWERS: (5 marks)

1. What are the types of urinals?
2. What are the equipments needed for offering urinal?
3. What are the types of bed pan?
4. What are the equipments needed for offering bed pan?
5. What is the indication for offering bed pan?

PART B — WRITE IN DETAIL: (10 marks)

1. Explain the procedure of offering bedpan?
2. List out the characteristics of stool?

APPLICATION OF BANDAGES

Preparatory Phase: A Preliminary Assessment

- Check the doctors order to see the specific precau-tions if any regarding the positioning and movement.
- Assess the patients need for application of bandage.
- Monitor vital signs
- Assess the patient's mental status
- Assess the need for pain medication
- Assure the patient, the patient's family.
- Assess the adequacy of circulation by noting sur-face temperature, skin color, and sensation of body parts to be wrapped.
- For tying the bandage a 'reef knot' must be always used. To make a 'reef knot' take the ends of the bandage one in each hand cross the end in the right hand under and then over the end in the left hand thus making a turn. Then cross the end now in the right hand over and then under the end in the left hand thus making a second turn.
- The usual granny knot should not be used as it is likely to come loose.
- The knot should be made where it does not hurt the skin or cause discomfort.
- Tuck the loose ends of the bandage out of sight.
- Not in use the triangular bandage should be folded narrow. Bring the two ends to the centre and fold again. It becomes a packet which measures 16 x 9 cm handy to carry.
- Wrinkled Bandages are uncomfortable.
- Never ignore any complaints of pain experienced by the patient. This should be Investigated and the cause is removed immediately.
- Do not use extra turns in order to use all the bandages.
- When completed, fix the bandage with a circular turn and secure it with a safety pin or other suitable materials such as adhesive strapping.

Preparation of the Patient

- Explain the sequence of the procedure to the patient and explain how the patient can assist you.
- Place the articles needed conveniently in the bed side table.
- Bring the patient to the edge of the bed.
- Close the windows and switch off the fan.
- Provide privacy
- Help the patient to assume comfortable and correct position.
- Perform hand hygiene.

Rules For Application Of Roller Bandage

- Face the patient
- When bandaging left limb, hold the head of the bandage in the right hand and vice versa.

- Apply the outer side of the bandage over the pad and wind it around the injury twice so that it is firm.
- Bandage from below upwards over the limb. Also make it a roll to apply bandage from the inner side to the outer side.
- See that the bandage is neither too loose nor too tight.
- Roll bandage so that each layer covers two-thirds of the earlier layer. Fix the bandage by pinning it up or using adhesive plaster. The usual practice of tearing the final end into two long tails and tying them up is quite satisfactory.

PERFORMANCE PHASE (PROCEDURE FOR APPLICATION OF BANDAGE)

BANDAGING

Objectives: At the end of this exercise you shall be able to

demonstrate bandage application

ARTICLES AND EQUIPMENTS REQUIRED

1) Correct width and number of bandages
2) Disposable gloves (if necessary)
3) Safety pins
4) Scissor
5) Adhesive tapes
6) Rubber sheet (if necessary)

- Apply bandage from distal point toward proximal boundary using variety to turns to cover various shapes of body parts.
- Unroll and very slightly stretch bandage
- Over lap turns by one half to two thirds width of bandage rolls.
- Secure first bandage with clip or tape before apply ing addition rolls
- Apply additional rolls without leaving any uncovered skin surface. Secure last bandage applied.
- Remove gloves if worn and perform hand hygiene
- Assess distal circulation when bandage application is complete and atleast twice during 8 hours period
- Observe The Bandage Site

Five 'P'

- Pain
- Pallor
- Pulselessness
- Palpate skin for warmth
- Paralysis

It comes in various widths lengths and types of material. For best results, use different widths for different body areas.

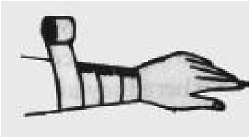
For e.g		Fingers -1 inch

Hand & arm -2 to 2.5 inches

Leg -3 to 3.5 inches

Trunk -4 to 6 inches

(a) Simple spiral Bandage

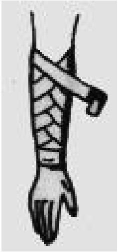


This is used on fingers or other uniform surfaces. This bandage is just round in spirals.

(b) Reversed spiral Bandage

This pattern is elegant and will fit a shaped limb, but is unstable and will only remain in place if the limb is at rest, it might be used for a fore arm kept in a sling, if no pressure was required. With the back of the patient's hand towards you, take a fixing turn round the wrist and carry the next turn upwards at an angle of 45°, turn the bandage over to cross itself at a right angle, and bring it round the limb ready for the next turn. The reverse must be made without tension and the pattern kept up the centre of the pronated fore arm.

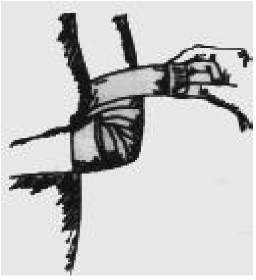
Figure of Eight



This is much the most useful pattern. It can be used to apply pressure over an extended joint or to bandage a leg, foot, hand or arm if movement is allowed. To use it on the leg, take a fixing turn, then carry the bandage upwards across the front of the limb at 45° round behind it at the same level and downwards over the front to cross the first turn at a right angle. Repeat the turns until the limb has been sufficiently covered.

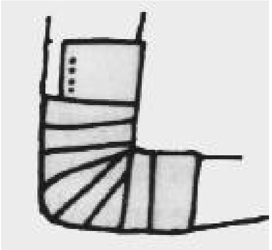
Divergent Spica

This pattern encloses a flexed joint (or) projection (e.g) knee, heel or elbow. It merely covers the dressing and exerts no pressure.



To apply it, pass the first and second turns over the centre of the joint. Succeeding turns pass alternately above and below these turns, forming a pattern at each side of the joint.

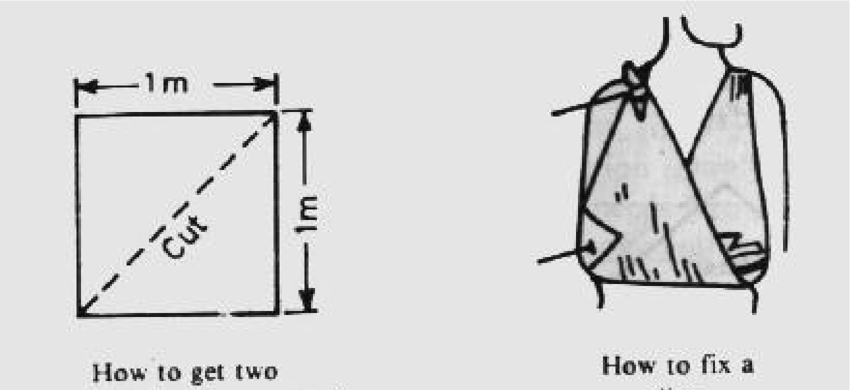
Elbow bandage



Roller bandages can be used at these joints to hold dressings in place, or to support soft tissue injuries such as strains (or) sprains. Always make sure that your bandaging extends sufficiently far on either side to exert even pressure. The method below, for bandaging an elbow, can also be used for a knee.

Large arm sling (used to support the fore arm)

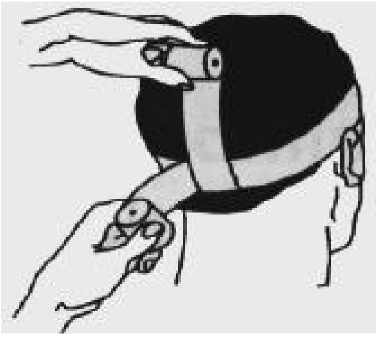
Stand in front of the casualty. Spread the bandage over the chest, with one end going over the shoulder on the uninjured side, and the other hanging over the abdomen; the point should be beneath the elbow. Place the fore arm slightly raised over the middle of the sling; bring the lower end up and tie on the injured shoulder to the other end with a reef knot. Tuck in the ends. Bring the point round to the front of the elbow, fold in neatly and pin.



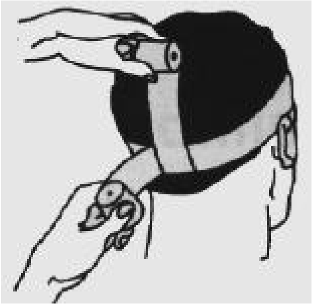
How to get two triangular bandages out of a square of cloth.

How to fix a sling.

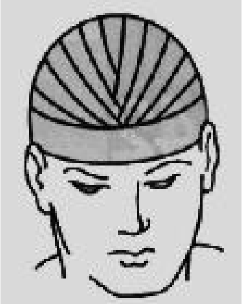
Capline bandage



a) one end being continued round the scalp and other going over it



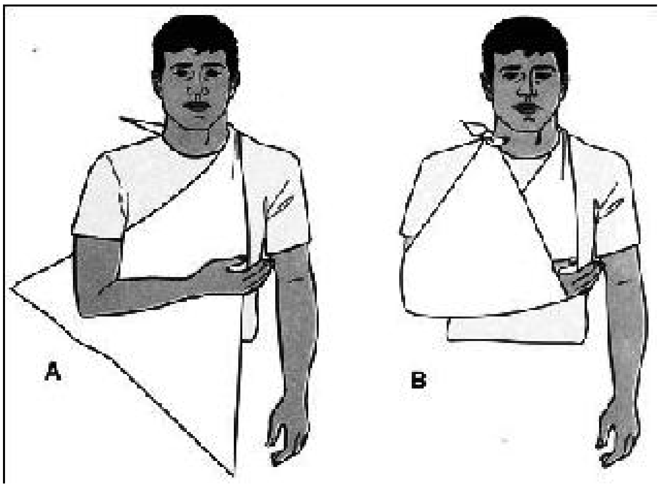
b) scalp turn secured by horizontal turn



c) capline bandage completed

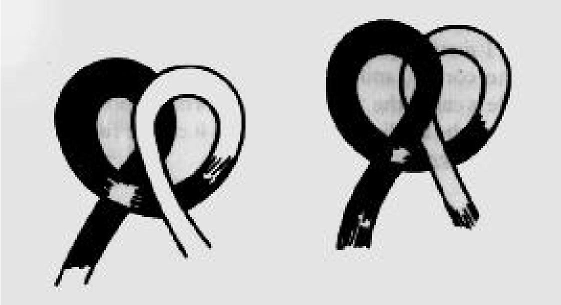
Place the open bandage on the head with the point at the back. Fold a narrow then at the base, place it just above the eye brows, then take the two ends backwards, cross them below the occiput with the point underneath, then back to the fore head where they are tied. Draw the point down and then upwards, and fix it with a safety pin.

Triangular Bandage



A triangular bandage is made by cutting a piece of calico 100 cm square from corner to corner so as to give two bandages. It has three borders. The longest is called base and the other two of the sides. There are three corners, the one opposite the base is called the point. The other two are called the ends

Cuff and Collar Sling



A Clove hitch

This supports the wrist only, with the casualty's fore arm flexed and fingers touching the opposite shoulder, a clove hitch, made from a narrow bandage, is placed round his wrist. The ends of the bandage are taken around the neck and tied in the hollow just above the collar bone, on the injured side.

Adhesive Tape And Strips

It comes in rolls and in variety of width. It is often used to secure roller bandage and small dressings in place.

For those allergic to adhesive tape, use paper tape or special dermatologic tape.

Adhesive strips are used for small cuts and abrasion and are a combination of a dressing and bandage.

The Spica

This is a modified figure of eight, and is useful for bandaging the hip, shoulder groin and thumb.

T BANDAGE

It is used for perineal dressings one meter length and 10cm width bandage for the waist band. One meter of 15cm bandage for the perineal dressings.

MATERIALS USED FOR BANDAGE

Flannel: Strong, warm and gives support, it is semi elastic, but heavy and may be too hot.

Open wove cotton: Light and expensive but does not give much support. It is unwashable but the edges fray.

Calico: Harsh and inelastic but firm useful for slings and for applying splints.

Crepe: Comfortable and gives good support, elastic and easy to apply expensive and washable.

QUESTIONS

PART A — WRITE SHORT NOTES: (5 marks)

1. What is spica?
2. Materials used for bandages.
3. Mention the articles used for bandaging?
4. What are the 5 p's?
5. Write the different widths of material used for body area?

PART B — WRITE IN DETAIL: (10 marks)

1. Explain about types of bandages?

RANGE OF MOTION EXERCISES

Definition: exercise is the exertion of the body for maintenance of its health.

Types of exercises:

1) **Active exercises**: active exercises are the motion or free movements performed by the individual without help.
2) **Passive exercises**: passive exercises are the motion or movements performed by another person for the patient.
3) **Active assistance exercise**: active assistance exercises is which the patient performs as much of the motion as possible with the help of another person as needed.
4) **Aerobic exercises**: aerobic exercises are activities that stimulate heart and lungs significantly increase oxygen uptake and is delivery to the body tissues.

5) **Isotonic exercises**: isotonic exercises are the normal type of exercises which the motion of a part take place involving shortening of the muscles and muscle contraction.

6) **Isometric exercises**: isometric exercises involves active contraction and relaxation of the muscle without movement of the joint that is normally mobilized by these muscles.

7) **Range of motion**: range of motion exercise are those in which a joint is moved through its full range of motion e.g. the full extent to which it is capable of being moved.

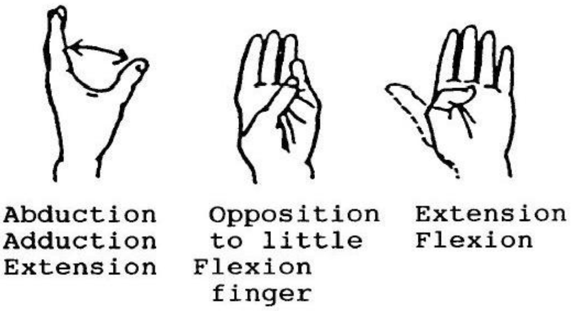
Purposes of exercise:

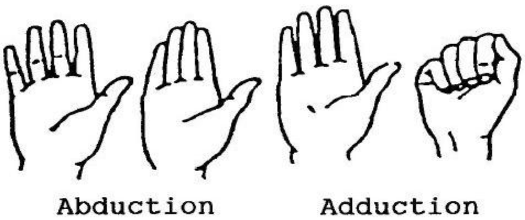
1) To promote health.
2) To retain movement in the joints.
3) To restore normal tone in the muscle.
4) To decrease cholesterol level.
5) To decrease body weight.
6) To delay degeneration changes.
7) To prepare patient for ambulation in orthopedic conditions and post operatively.
8) To prevent deformity.
9) To promote physical mobility.
10) To improve gait in crutch walking.
11) To improve blood supply in vascular disorders.
12) To prevent constipation.
13) To reduce stress.

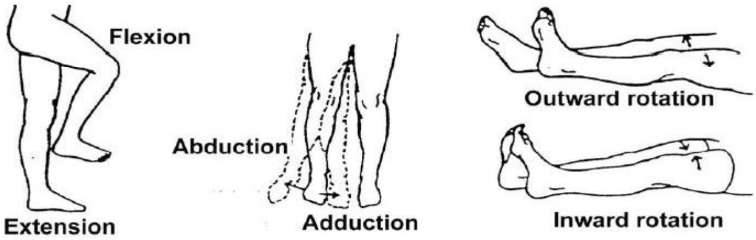
Movements of various joints:

1) **Abduction**: movements away from the midline of the body.
2) **Adduction**: movements towards from the midline of the body.
3) **Flexion:** bending of a joint so that the angle of the joint diminishes.
4) **Extension**: the return movement from flexion around joint angle is increased.
5) **Rotation:** turning or movement of a part around its axis.
6) **Pronation:** rotation of the forearm so that the palm of the hand is down.
7) **Supination:** rotation of the forearm so that the palm of the hand is up.
8) **Opposition:** touching thumb to each finger tip on the same hand.

RANGE OF MOTION EXEERCISES:







QUESTIONS

PART A — WRITE SHORT NOTES: (5 marks)

1) Write the types of exercises.
2) What are the purposes of exercise.
3) What are the types of movement of various joints.

ENEMA

Enema: Enema is an injection of fluid into the lower bowel though the rectum for the purpose of cleaning or to provide medication or nourishment.

Indication:

1) Stimulate the bowel movement and cleaning the large bowel eg. Soap and water enema.
2) Stimulate peristalsis eg. Asafoetida
3) Relieving flatulance or distension eg. Carminative enema

4) Soothing irritated mucosa of the colon eg. starch.

5) To check diarrhea eg. starch

6) To supply fluids and nutrients eg. Glucose and Saline

7) To stimulate patient eg. Coffee

8) To reduce temperature - cold enema

9) To quiet patient by introducing sedatives

10) To make diagnosis eg. Barium Enema.

Procedure: For Soap and Water Enema

Equipment required.

1) Enema Can

2) Tubing and Clamp

3) Appropriate size rectal tube in a sterile container/wrap Adult 22-30 French gauge, Child 12-18 French gauge

4) Correct volume of solution warmed to 105-109 deg. F for adults and 98.6 deg. F for child

5) Bath thermameter

6) Lubricating jelly

7) Mackintosh

8) Bath blanket

9) Bed pan or a Commode

10) Disposable Gloves

11) Towel and Basin

12) IV Pole

13) Screen

Procedure

1) Assess Status of patient's last bowel movement mobility etc.

2) Review Physicians order

3) Explain procedure to the patient

4) Assemble equipment near bedside

5) Provide Privacy

6) Place mackintosh under patients hip.

7) Position patient in left lateral with right knee flexed

8) Cover patient with both blanket expressing rectum

9) Place bedpan or commode in easily accessible position

10) Assemble enema can, tubing and the clamp and rectal tube.

11) Add 30 ml. of soap solution with 500 ml of warm water, check temp of solution and pour solution into can.

12) Raise container 30-45 cm. above the anus.

13) Wash hands and wear gloves

14) Lubricate sides of the rectal tube with vaseline

15) Gently seperate buttocks locate rectum and insert rectal tube 7.5 -10 cm to adult by instructing the patient to take deep breath.

16) Hold tubing in place.

17) Open regulating clamp and allow solution to enter slowly.

18) Explain the feeling of distension is normal

19) Advice patient retain solution for 5-10 min

20) Discard enema can and tubing in proper receptacle after thorough washing.

Questions

PART A — WRITE SHORT NOTES: (5 mark)

1) Define enema and indication for enema?

2) Explain the procedure of soap and water enema?

CARDIO – PULMONARY RESUSCITATION

DEFINITION: Resuscitation is a method which includes all measures that are applied to revive patients who have stopped breathing suddenly and unexpectedly due to either respiratory or cardiac failure.

PURPOSE:

1) To maintain an open and clear airway (A).
2) To maintain breathing by artificial ventilation (B).
3) To maintain blood circulation by external cardiac massage (C).
4) To save life of the patient.
5) To provide basic life support.

INDICATIONS:

CARDIAC ARREST:

1) Ventricular fibrillation (VF).
2) Ventricular tachycardia (VT).
3) Asystole.
4) Pulseless electrical activity.

RESPIRATORY ARREST:

1) Drowning. 2) Stroke. 3) Foreign body in throat.
4) Smoke inhalation. 5) Drug overdose. 6) Electrocution or injury by lighting.
7) Suffocation 8) Accident, injury. 9) Coma.
10) Epiglottis paralysis.

PRINCIPLES OF CPR

1) To restore effective circulation and ventilation.
2) To prevent irreversible cerebral damage due to anoxia.

GENERAL INSTRUCTIONS FOR EFFECTIVE CPR:

1) CPR techniques are used in persons whose respirations and circulation of blood have suddenly stopped.
2) The CPR must be initiated within three to four minutes.
3) The CPR techniques should not be discontinued for more than five seconds before normal circulation and ventilation of lungs are established.
4) Before CPR is attempted in a patient, make sure that the airway is clear.

SIGNS OF EFFECTIVE CPR:

1) Movement and struggling.
2) Distinct carotid pulsations with each cardiac compression.
3) Decreased cyanosis.
4) Breathing that begins spontaneously.
5) Blinking upon stimulation of the eyelid.
6) Constriction of pupils.

INEFFECTIVE RESUSCITATION:

When CPR efforts are not effective, it is usually because of one or more of these problems.

1) The patient is not lying on a hard surface.
2) The patient's head is not placed in the proper head tilt position for ventilations.
3) The patient's mouth is not opened.
4) The rescues's hands are incorrectly placed.
5) The chest is not sufficiently compressed.
6) The compression ratio is too rapid or too slow.

COMPLICATIONS:

1) Pneumothorax as a result of ribs fractured during cardiac massage.
2) Haemorrhage from ruptured liver.
3) Brain damage as a result of cerebral hypoxia.
4) Seizure.

SIGHT FOR CARDIAC COMPRESSION

1) First of all trace the last rib and follow the rib to the notch.
2) Then place the heel of the other hand on the lower part of the sternum about 1 – 1 ½ inch above the palpating hand.
3) Then placed on the top of the hand, which is resting on the sternum.
4) Both hand should be parallel.
5) Keep fingers off the chest or interlocked.
6) If fingers are resting on the chest, force will be dissipated.
7) The artificial breathing and cardiac massage should correspond to the normal respiration and pulse rate.
8) Ventilations are given between cardiac compression.
9) The ratio of cardiac compression to ventilation is 5:1 (ie) 5 cardiac compressions to one ventilation. Cardiac compression is give at the rate of 60 per minute.

PROCEDURE:

PREPARATION OF THE PATIENT:

1) No time is lost in explaining the procedure to the patient or his relatives.
2) Can explain in simple language to the relatives.

3) Patient may be shifted to a hard surface.

4) Remove or push aside the clothing which covered the patient's chest to observe for cardiac beats and respirations.

5) Place the patient back on his back without any pillows. This position helps in maintaining airways and giving external cardiac compressions.

6) Tight clothing around the neck and chest should be removed.

7) Ensure fresh air in the room by opening windows and doors.

8) External cardiac massage must be started within 4 to 6 minutes.

PREPARATION OF ARTICLES:

EQUIPMENTS:

A tray containing the f ollowing articles:

1) Endotracheal tubes of various sizes (7,7.5, 8).

2) An ambu bag with mask.

3) Stillet (in a plastic cover)

4) Megal's forceps (in a plastic cover).

5) A suction tube or catheter.

6) Laryngoscope with different sizes of blades.

7) Nasal airway.

8) Oral airway

9) A bowl with gause pieces.

10) Lubricating jelly.

11) Adhesive tape with scissors.

12) Local anaesthetic (drug) spray.

13) Gloves in cover.

14) A kidney tray.

15) A paper bag.

16) Masks of various sizes.

17) Local anaesthetic drugs (xylocaine 2% and 4%)

18) Disposable syringes with needles.

19) An intravenous IV set and a cut down set.

OTHERS:

1) Oxygen inhalation (central supply)
2) Suction point (central supply).
3) Defibrillator.

A TRAY CONTAINING EMERGENCY DRUGS:

1) Inj. Adrenaline.
2) Inj. Atropine.
3) Inj. Digoxin.
4) Inj. Sodium Bicorbonate.
5) Inj. Dopamine.
6) Inj. Efcorlin.
7) Inj. Decadron.
8) Inj. Avil.
9) Inj. Calcium gluconate.
10) Inj. Aminophylline.
11) Inj. Calmpose.
12) Inj. 20% Dextrose.
13) Inj. Deriphyllyin.

Syringes with needles cannula on cotton pad and gloves in cover.

STEPS TO PROCEDURE:

ONE RESCUER:

1) Determine unresponsivesness.
2) Place victim in a supine position.
3) Open the airway with the head tilt chin.
4) Place ear on mouth and nose and feel for respiration.
5) If the person is breathing but unconscious place him in the rescue position.
6) If the victim is not breathing obtain barrier device.
7) Place mask over mouth and nose and deliver 10 to 12 breaths / minutes.
8) Check for pulse at carotid artery for 5 to 10 seconds.

9) If no pulse, begin chest compressions.

10) Place heel of one hand over lower half of sternum, and place other hand on top.

11) Straighten arms and sock elbows. Keep shoulders directly over hands.

12) Compress chest 1 ½ to 2 inches. Perform 15 chest compressions at a rate of 80 to 100/ minute.

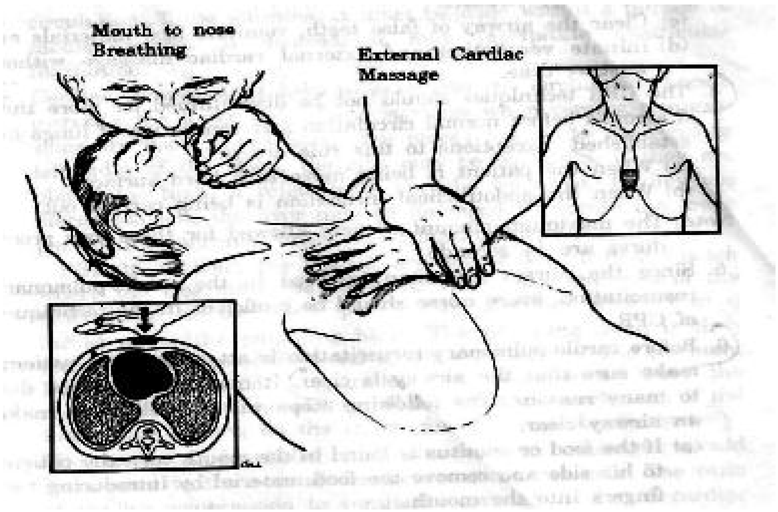
13) After the 15 compressions, deliver two slow rescue breaths.

14) After four cycles, reassess.

15) If the person is pulseless and apneic continue CPR.

16) If pulse has returned begin rescue breathing.

17) If effective breathing and pulse have returned place the victim in the recovery position.



TWO RESCUERS:

1) Two rescuer CPR is preferable.

2) One rescuer performs chest compressions while the other performs rescue breathing.

3) The compression ventilation cycle is 5:1. After five chest compressions one breath is delivered.

4) When the rescuer performing chest compression becomes fatigued, the rescuers should change positions.

POST RESUSCITATION CARE:

1) Providing cardio respiratory support to optimize tissue perfusion, especially to the brain.

2) Transport the patient to the hospital emergency department.

3) Attempt to identify the precipitating causes to the arrest.

4) Institute measures such as Anti Arrhythmic therapy to prevent recurrence.

Questions

PART A — WRITE SHORT NOTE: (5 marks)

1) Define CPR and purpose of CPR?

2) What are all the indication of CPR?

3) Write the sights for Cardiac compression?

PART B — WRITE IN DETAIL : (10 marks)

1) Write the procedure of CPR?

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